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International Journal of Leadership, Entrepreneurship and Digital Innovation

A referred and indexed scientific journal

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Journal Objectives

1. Publish specialized and high-quality research in the fields of digital transformation and leadership.
2. Support researchers and academics from all over the world in presenting and disseminating their scientific work.
3. Encourage interdisciplinary studies in digital leadership and emerging technologies.
4. Promote a scientific environment that fosters institutional innovation and entrepreneurship.
5. Contribute to the development of theoretical and applied knowledge in business administration and digital education.
6. **The journal focuses on the following areas:**
    - Digital Transformation and Institutional Innovation.
    - Entrepreneurship and Smart Leadership.
    - Business Administration and Artificial Intelligence.
    - Educational and Digital Leadership.
    - Institutional Innovation and Entrepreneurship.
    - E-Learning Technologies.
    - Knowledge Management and Learning Organization.

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1. Manuscripts must be original and not previously published or submitted to another conference or journal.
2. The journal accepts research papers in both Arabic and English.
3. Each paper must be accompanied by an abstract in the opposite language (Arabic/English), not exceeding 500 words, with three keywords.
4. Formatting requirements:

- Maximum 20 pages (A4) or 10,000 words.
- Font: *Times New Roman* (12 for text, 14 for headings in English; Arabic text in Traditional Arabic, size 14).
- Line spacing: 1.5.
- Margins: 2.5 cm on all sides.
- Heading numbering allowed up to two levels only (1, 1.1).

5. Publication fee: USD 75 (non-refundable) after initial acceptance.

Required Paper Structure

1. Title Page: Research title, author(s) details (full name, institutional affiliation, email, phone number).
2. Abstract: The research idea, methodology, and main findings.
3. Keywords (3–6).
4. Introduction.
5. Theoretical Literature and Previous Studies.
6. Methodology and Procedures (research design, population, sample, tools, validity, reliability, statistical analysis).
7. Results and Discussion.
8. Conclusions and Recommendations.
9. References according to APA 7th edition (Arabic references should be translated into English and placed at the end).

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- Papers should be submitted through the official website:
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Correspondence:

Toronto Academy of Leadership and Languages – Canada
www.secondclick.caEmail address: torontoacademyll@gmail.com

Phone: 00962786231883 - 0012896338963

Official Postal Address:
30 Eglinton Avenue West, Floor 4, Unit 400,
Mississauga, Ontario, L5R3E7, Canada

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A Proposed Administrative Framework for Employing Artificial Intelligence in International Business Organizations to Effectively Adapt to Rapid Digital Changes and Achieve Sustainable Development

Author Information:

Dr. Mousa Abdallah Hamdan
Associate Professor, College of Economics and Business Administration, Islamic University of Minnesota, USA

📧 **Email: mousa.hamdan15@gmail.com**
📞 **Phone: +1 (289) 633-8963**

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Abstract:

This study aims to propose an administrative framework for employing artificial intelligence (AI) in international business organizations to enhance their ability to effectively adapt to rapid digital changes and contribute to achieving sustainable development. The researcher employed a developmental survey methodology to collect data from a sample of 61 leaders representing global organizations across four sectors, selected through stratified random sampling.

The findings revealed that the level of AI adoption in international business organizations, from the perspective of institutional leaders, was at a moderate level. Furthermore, the results showed no statistically significant differences at the level of ($\alpha = 0.05$) that could be attributed to sector, job position, academic qualification, or years of experience.
Based on these results, the researcher developed a proposed administrative framework that outlines mechanisms for employing AI in international business organizations. The study recommends the practical adoption of this framework to improve the efficiency of AI utilization and to achieve organizational sustainability across economic, social, and environmental dimensions.

Keywords: Artificial intelligence, international business organizations, digital transformation, sustainable development

1. Introduction

Today, AI is a key pillar in promoting the Sustainable Development Goals (SDGs) that the United Nations seeks to achieve by 2030 within its seventeen goals. Given the position of global industrial and service business organizations, the integration of AI into their various operational activities is a key prerequisite for overcoming the challenges associated with partners and customers and achieving tangible success in its applications.
In light of the transformations brought about by the Fourth Industrial Revolution and the explosion of knowledge in the digital age, there is an urgent need for global organizations to develop AI algorithms to ensure their ability to adapt to rapid changes. Achieving sustainable development requires integrated strategies based on human capital development, infrastructure enhancement, and change leadership, as well as a commitment to continuous improvement, in order to harness the potential of AI to achieve economic, social, and environmental outcomes that serve the Sustainable Development Goals.
In this sense, the responsibility of senior management becomes doubly, as it is their responsibility to train employees, build partnerships, promote collaboration between different sectors, as well as manage data and adopt ethical considerations that cannot be neutralized, all of which are essential elements for the success of sustainable development strategies (Kulkov et al., 2023).
Artificial intelligence has opened up vast horizons for business, government policies, and corporate practices. Machines and robots based on deep learning capabilities are now able to address cognitive problems that were once the preserve of human intelligence. This is where the pivotal role of the academic community in preparing a new generation of leaders and policymakers is highlighted, by including courses that introduce students to the positive and negative effects of artificial intelligence and prepare them to understand the current and future world.

In light of this reality, data collection and analysis has become a vital necessity for strategic decision-making in global organizations, which requires a sophisticated technological infrastructure capable of dealing with big data. Therefore, AI is the most effective tool to achieve organizational sustainability in its various dimensions. However, organizations face several challenges, most notably the dearth of human competencies specialized in artificial intelligence, the lack of interest of institutional leaders in qualifying employees or attracting new skills, as well as the excessive reliance on smart systems in decision-making without involving the human element (Goralski & Tan, 2020).

The relevant literature has shown the importance of integrating the human factor with AI systems in managerial decision-making to raise the efficiency of organizational governance. For example, the Badghish and Soomro (2024) study showed that the adoption of AI applications by SMEs in Saudi Arabia within the technology-organization-environment (TOE) framework contributes to enhancing sustainable performance. Zhao and Gómez Fariñas (2023) Artificial intelligence is a double-edged sword, which can push sustainability forward, or lead to new risks unless it is regulated by balanced regulatory frameworks. Kitsios and Kamariotou (2020) have highlighted through a systematic review that the added value of AI is achieved through its integration with corporate strategy, knowledge management, and service innovation.

1.1 Study Problem and Questions

Despite the vast potential of AI, its integration into the operations of global organizations still faces challenges related to rapid changes, poor investment in human capital, inadequate infrastructure, as well as ethical and regulatory considerations. Organizations also face difficulties in addressing the most intractable global issues, such as poverty, environmental degradation, economic injustice, and mismanagement.

Based on the above, the main question of the study can be formulated as follows:

- **What is the proposed management concept for employing artificial intelligence in global business organizations to effectively adapt to the rapid digital changes and achieve sustainable development?**

The following sub-questions emerge from it:

1. What is the reality of employing artificial intelligence in global business organizations to effectively adapt to rapid digital changes and achieve sustainable development from the perspective of their leaders?
2. Are there any statistically significant differences at the level of ($\alpha = 0.05$) in the responses of the study sample to the degree of the need to employ artificial intelligence attributed to the variables of sector, job position, and experience?
3. What is the proposed management concept for employing artificial intelligence in global business organizations to effectively adapt to the rapid digital changes and achieve sustainable development?
4. What is the degree of suitability of the proposed management concept for employing artificial intelligence in global business organizations to effectively adapt to the rapid digital changes and achieve sustainable development from the perspective of experts?

1.2 Importance of studying

Scientific Significance

- Enriching scientific knowledge in the field of global business administration by highlighting the role of artificial intelligence in improving business efficiency.
- Providing new insights into the use of AI in big data analysis and improving decision-making processes.
- Develop concepts and theories related to the relationship between artificial intelligence and global business management.

Practical relevance

- Helping enterprise leaders and decision-makers identify best practices in employing AI to enhance competitiveness.
- Providing practical solutions for global companies on the applications of AI in supply chains and customer experience.

1.3 Objectives of the study

This study seeks to achieve the following objectives:

- Identify the reality of employing artificial intelligence in global business organizations to effectively adapt to rapid digital changes and achieve sustainable development from the perspective of enterprise leaders.
- Detecting statistically significant differences at the level of $(\alpha = 0.05)$ in the responses of the study sample members to the degree of the need to employ artificial intelligence in global business organizations, which may be attributed to the variables of the sector, job status, educational qualification, or years of experience.
- Building a proposed management concept for employing artificial intelligence in global business organizations in order to enhance adaptation to rapid digital changes and achieve sustainable development.
- Determining the degree of suitability of the proposed management concept from the point of view of experts and specialists in the field of business administration and artificial intelligence.

1.4 Study Terminology

The terms of the study were defined as follows:

- Proposed Perspective

"It is a future planning, or a vision for a specific topic based on a prior background in this topic, and based on previous studies, research, and experiences, by adopting what is positive and avoiding what is negative" (Al-Bawayza, 2016, p. 16).

- Artificial Intelligence

"It is the ability of digital machines and computers to perform certain tasks that mimic and resemble those performed by intelligent beings, such as the ability to think or learn from previous experiences or other processes that require mental processes, and virtual artificial intelligence aims to reach systems that are intelligent and behave in the way that humans behave in terms of learning and understanding, so that these systems provide their users with various services of education, guidance, inaction, etc." (Al-Zoubi, 2023, p. 15).

- Sustainable Development

"Development is a revolutionary process that involves comprehensive transformations in social, economic, political and legal structures as well as lifestyles and cultural values" (Al-Lozi, 2002, 25).

1.5 Limitations of the study

- Objectivity: It is limited to the employment of artificial intelligence in global business organizations.
- Spatial: Includes global multi-sectoral business organizations.
- Temporality: Covers the period associated with the developmental survey conducted by the researcher.
- Human: Focuses on the leaders of global organizations who represent the study sample.

2. Method and Procedures

This part dealt with the study methodology, its population, its sample, the study tool, its honesty and consistency.

2.1 Study Methodology

This study followed the developmental survey method as the most appropriate method to achieve the objectives of the study, and the necessary data were collected from the study sample using a questionnaire.

2.2 Study Sample

The study sample consisted of (61) leaders of international institutions (Enterprise Manager, Deputy Manager, Directorate Manager, Department Head) who were selected by stratified random method according to the study variables (sectors, job centers, and practical experience).

2.3 Study Tool

To achieve the objectives of this study, the study tool was developed and consisted of a questionnaire that reveals the degree of employment of artificial intelligence in global business organizations to effectively adapt to the rapid digital changes and achieve sustainable development, based on the theoretical literature and previous studies related to the subject of the study, such as the study of Badghish & Soomro (2024) entitled "- *igence Adoption by SMEs to Achieve Sustainable Business Performance: Application of Technology–Organization–Environment Framework*., and **Goralski & Tan's (2020) study** entitled "Artificial Intelligence and Sustainable Development", and the questionnaire in its initial form consisted of (30) paragraphs distributed over five axes, as follows:

- **The first theme:** the reality of employing artificial intelligence in global business organizations
- **Second Theme:** Organizational and Human Challenges to Employing Artificial Intelligence
- **The Third Theme:** The Impact of Artificial Intelligence on Decision-Making and Achieving Institutional Efficiency
- **Fourth Theme:** The Role of Artificial Intelligence in Promoting Sustainable Development
- **Fifth Theme:** The Proposed Administrative Concept and its Degree of Appropriateness from the Experts' Perspective
- The pentagram was used to measure the developed paragraphs, as shown in the following figure:

Fact					Paragraphs
1	2	3	4	5	

Very weak	Weak	Medium	High	Very high	

2.4 Validity of the study tool

The validity of the two study tools was verified by extracting the content validity, as it was presented in its initial form to a group of specialized arbitrators, to know the degree of belonging of the paragraphs to the axes and the appropriate linguistic formulation, and the amendments recommended by the arbitrators were made by deleting and reformulating some paragraphs, so that three paragraphs were deleted and some paragraphs were transferred to other axes, so that the study tool in its final form became composed of (25) paragraphs.

2.5 Stability of the study tool

The stability of the tool was verified by calculating the internal consistency using the Cronbach alpha coefficient for the resolution domains, and the value of the stability coefficients for each of the domains was extracted as follows:

Table 1
Stability coefficients values for resolution domains

Fact	Number of paragraphs	Domain	Domain Number
0.84	5	The Reality of Employing Artificial Intelligence in Global Business Organizations	**1**
0.85	5	Challenges and Obstacles in Employing Artificial Intelligence	**2**
0.92	5	The Impact of Artificial Intelligence on Decision-Making and Corporate Governance	**3**
0.89	5	The Role of Artificial Intelligence in Promoting Sustainable Development	**4**
0.79	5	Proposed management concept and its adequacy	**5**

Table (5) shows the values of the stability coefficients, as the coefficients ranged between (0.79) in the minimum and (0.92) in the upper limit, which are high values and suitable for the purposes of the study, and indicate that there is an appropriate internal consistency for all areas.

2.6 Statistical Processing:

To answer the questions of the study, the appropriate statistical methods were used as follows:

To answer the first question: the arithmetic averages and standard deviations of the reality of the employment of artificial intelligence in global business organizations were calculated from the point of view of their leaders for each paragraph, each field, and all the tool.

To answer the second question: t-test, MANOVA multiple variance analysis was used.

To answer the third question: The effectiveness of the paragraphs was extracted using the Pearson correlation coefficient for the correlation between the paragraph, the domain, the paragraph, and the whole tool.

To answer the fourth question: The concept was presented to a number of (12) experts and arbitrators to express their opinions and observations on its suitability, realism, comprehensiveness, and feasibility.

The levels of the scales were divided into three levels: low, medium, and high. Each of these three levels was calculated according to the following equation:

Maximum Answer Limit – The minimum answer is divided by the number of categories selected.

1.33 = 3 / 1-5

Thus, it is:

Low 1 + 1.33 = 2.33 and below

Intermediate level 2.34 + 1.33 = 3.67

High level 3.68 and above.

3. Study Results and Discussion

This part included a presentation of the findings of this study by answering its questions, and discussing these results as follows:

The results related to the first question, which states: What is the reality of employing artificial intelligence in global business organizations from the perspective of their leaders? and discuss

To answer this question, arithmetic averages and standard deviations were calculated, and Table (2) shows that:

Table (2)
Mathematical Averages and Standard Deviations of the Degree of Employment of Artificial Intelligence in Global Business Organizations from the Perspective of Their Leaders

Grade	Standard Deviation	Arithmetic average	Rank	domains	Domain Number
Medium	.65	3.26	1	Proposed management concept and its adequacy	5
Medium	.67	3.19	2	The Role of Artificial Intelligence in Promoting Sustainable Development	4
Medium	.75	3.15	3	Challenges and Obstacles in Employing Artificial Intelligence	2
Medium	.99	2.98	4	The Impact of Artificial Intelligence on Decision-Making and Corporate Governance	3
Medium	.74	2.84	5	The Reality of Employing Artificial Intelligence in Global Business Organizations	1
Medium	**.60**	**2.97**	**The degree of application of artificial intelligence in global business organizations**		

The results showed that the degree of employment of artificial intelligence in global business organizations from the point of view of their leaders came to an average degree, as the general arithmetic average reached (2.97) with a standard deviation of (0.60). The arithmetic averages of the study fields ranged between (2.70 – 3.26), and the standard deviations between (0.99 – 0.65), which reflects that artificial intelligence is still in the phase of partial use and has not yet

reached the level of comprehensive employment that can make a qualitative leap in institutional performance.

The fifth area was "Proposed Management Perception and its Degree of Relevance" with an arithmetic average of (3.26) and a standard deviation of (0.65). This is due to the fact that global enterprise leaders are aware of the importance of having a clear management framework that helps them cope with rapid digital changes, and guides the integration of modern technology, human resources, and organizational processes. This finding is in line with the findings of the study of Kitsios and Kamariotou (2020) The meeting highlighted the importance of developing an integrated research and strategic framework to activate artificial intelligence in line with the trends of digital transformation and the requirements of institutional development.

The fourth area, "The Role of Artificial Intelligence in Promoting Sustainable Development", came in second place with an arithmetic average of (3.19) and a standard deviation (0.67). This may be attributed to the fact that many global organizations have already begun to adopt AI solutions to enhance the dimensions of economic, social and environmental sustainability, but this adoption is still in its initial stages and has not yet turned into a comprehensive approach. This finding is consistent with the study of Kulkov et al. (2023) She explained that artificial intelligence is a key tool to achieve the Sustainable Development Goals, but its actual implementation requires advanced organizational and technical readiness to ensure continuity and effectiveness.

The second area, "Challenges and Obstacles in Employing Artificial Intelligence", came in third place with an arithmetic average of (3.15) and a standard deviation (0.75). This is due to the difficulties faced by organizations related to the high costs of implementing AI systems, the lack of qualified human competencies, in addition to the ethical and regulatory challenges associated with the use of these technologies. This finding is in line with the study of Badghish and Soomro (2024) For example, SMEs in Saudi Arabia face obstacles related to infrastructure and poor human resource qualification, which limits their ability to take full advantage of AI applications.

The third area, "The Impact of Artificial Intelligence on Decision-Making and Corporate Governance", came in fourth place with an arithmetic average of (2.98) and a standard deviation of (0.99). This may be attributed to the fact that global organizations are still in a transitional phase in terms of using AI as a primary tool to support managerial decisions, as traditional systems and human decisions are mostly relied on while making partial use of AI capabilities. Zhao and Gómez Fariñas (2023) have pointed out Artificial intelligence (AI) is a double-edged sword, as it can contribute to improving decisions and strengthening governance, but it can also lead to ethical challenges and regulatory risks in the absence of effective regulatory frameworks.

Finally, the first area, "The Reality of Employing AI in Global Business Organizations," came in fifth and last place with an arithmetic average of (2.70) and a standard deviation (0.79). This is due to the fact that global organizations still face a clear lack of large-scale integration of AI technologies into their core activities, and that use is often limited to limited areas such as data marketing or customer service support. This finding is consistent with what Goralski and Tan (2020) have pointed out He said that AI has not yet reached the level of total adoption in organizations, and that its deployment requires greater preparation at the level of infrastructure, institutional policies, and qualified human resources.

The results related to the second question, which states: Are there any statistically significant differences at the level of (α = 0.05) in the responses of the study sample to the degree of the need to employ artificial intelligence attributable to the variables of sectors, job centers, and work experiences?

To answer this question, the arithmetic averages and standard deviations of the fields of the degree of employment of artificial intelligence were extracted attributable to sectors, job centers, and practical experiences, and Table (3) shows that:

Table (3)
The arithmetic averages and standard deviations of the fields of the AI employment degree are attributed to the variables of sectors, job positions, and work experience.

Proposed management concept and its adequacy	The Role of Artificial Intelligence in Promoting Sustainable Development	Artificial Intelligence on Decision Making	Organizational and Human Challenges of Employing AI	The Reality of Employing Artificial Intelligence	Variables		
1.16	1.50	1.13	1.39	1.54	Arithmetic average	Industrial	**Sectors**
0.85	0.98	0.71	0.88	0.87	Standard Deviation		
1.31	1.67	1.45	1.48	1.51	Arithmetic average	Initiation and Services	
0.87	0.78	0.83	0.84	0.78	Standard Deviation		
1.05	1.23	1.00	1.03	1.45	Arithmetic average	Enterprise Manager	**Career Center**
1.19	1.19	1.09	1.15	1.04	Standard Deviation		
0.83	1.23	0.97	1.19	1.30	Arithmetic average	Deputy Director	
0.56	0.95	0.53	0.64	0.73	Standard Deviation		
1.06	1.59	1.24	1.47	1.58	Arithmetic average	Directorate of	
0.86	0.92	0.66	0.79	0.93	Standard Deviation		
1.36	1.61	1.28	1.47	1.58	Arithmetic average	Head of Department	

0.86	0.92	0.80	0.92	0.82	Standard Deviation		
1.18	1.47	1.15	1.30	1.45	Arithmetic average	**Year to 3 years**	Experiences The Process
0.88	0.95	0.72	0.86	0.93	Standard Deviation		
1.29	1.69	1.33	1.52	1.64	Arithmetic average	4 years to 10 years	
0.85	0.89	0.75	0.83	0.76	Standard Deviation		
0.72	1.02	0.85	1.38	1.36	Arithmetic average	11 years and above	
0.57	0.91	0.85	1.15	0.87	Standard Deviation		

The results show that there are apparent differences in the arithmetic averages of the domains of the degree of employment of artificial intelligence attributed to the variables of sectors, job centers, and practical experiences, and to find out whether these apparent differences are statistically significant, multiple variance analysis (MANOVA) was used, and Table (4) shows that:

Table (4)

Multiple Variance Analysis (MANOVA) of Differences in the Fields of Degree of Need for Employing Artificial Intelligence according to Sector Variables, Job Centers, and Practical Experience

ETA Square	Statistical Significance	P value	Average Squares	Degrees of Freedom	Total Squares	domains	Source of Contrast
.004	.546	.366	.267	1	.267	The Reality of Employing Artificial Intelligence	**Sectors** **Hoteling Value (0.102)** **P Value (1.301)** **Significance Level (0.259)**
.000	.950	.004	.003	1	.003	Organizational and Human Challenges of Employing AI	
.017	.202	1.654	.917	1	.917	Artificial Intelligence on Decision Making	
.000	.917	.011	.009	1	.009	The Role of Artificial Intelligence in Promoting Sustainable Development	
.000	.848	.037	.026	1	.026	Proposed management concept and its adequacy	
.012	.760	.391	.285	3	.856	The Reality of Employing Artificial Intelligence	**Career Centers**

.020	.582	.655	.503	3	1.508	Organizational and Human Challenges of Employing AI	**Lambda Value (0.865)**
.022	.538	.727	.403	3	1.209	Artificial Intelligence on Decision Making	**P value (0.633)**
.028	.431	.926	.797	3	2.391	The Role of Artificial Intelligence in Promoting Sustainable Development	**Significance Level (0.893)**
.065	.095	2.187	1.536	3	4.607	Proposed management concept and its adequacy	
.018	.431	.850	.620	2	1.241	The Reality of Employing Artificial Intelligence	**Work Experience**
.012	.562	.579	.444	2	.889	Organizational and Human Challenges of Employing AI	**Lambda Value (0.906)**
.023	.328	1.127	.625	2	1.250	Artificial Intelligence on Decision Making	**P value (0.646)**
.040	.145	1.974	1.699	2	3.399	The Role of Artificial Intelligence in Promoting Sustainable Development	**Significance level ((0.824)**
.038	.156	1.897	1.332	2	2.664	Proposed management concept and its adequacy	
			.730	95	69.321	The Reality of Employing Artificial Intelligence	**Mistake**
			.767	95	72.886	Organizational and Human Challenges of Employing AI	
			.554	95	52.646	Artificial Intelligence on Decision Making	
			.861	95	81.781	The Role of Artificial Intelligence in Promoting Sustainable Development	
			.702	95	66.705	Proposed management concept and its adequacy	
				101	71.512	The Reality of Employing Artificial Intelligence	**Total**
				101	75.531	Organizational and Human Challenges of Employing AI	

				101	56.920	Artificial Intelligence on Decision Making	
				101	87.693	The Role of Artificial Intelligence in Promoting Sustainable Development	
				101	73.667	Proposed management concept and its adequacy	

The results showed that there were no statistically significant differences at the level of significance ($\alpha = 0.05$) in the responses of the study sample according to the variables of sectors, job centers, and work experiences, where the values of (P) were not statistically significant.

This finding can be explained by several factors, the first of which is that managers, their vice presidents, department heads, and all leaders, regardless of their sectors or work experience, live in similar organizational conditions and are subject to uniform policies and systems within global organizations, making their organizational culture towards AI applications convergent. This finding is consistent with the findings of Goralski & Tan's (2020) study She pointed out that organizations, despite their different sectors, often adopt common policies regarding the integration of AI in administrative and operational processes, and therefore do not show clear differences attributed to the sector variable.

The lack of differences attributable to job status can be explained by the objectivity of global leaders with a shared culture and similar leadership experience, as well as the absence of clear and rigorous strategies for employing AI, which makes their responses relatively convergent. 2023) in their study, which emphasized that the absence of clear regulatory frameworks and strategic policies reduces the differences between different functional levels regarding perceptions towards AI.

In terms of work experience, the results showed that there were no statistically significant differences between the sample members according to their years of experience. This is due to the fact that all leaders typically undergo standardized training and qualification courses when they assume leadership positions, which gives them similar experiences and skills that make their perceptions of AI converged. However, this finding differs from the findings of the Badghish & Soomro (2024) study It pointed to differences in work experience in SMEs, showing that leaders with longer experience were more aware of the organizational and technological barriers associated with AI adoption.
Accordingly, it can be said that the lack of statistically significant differences in this study reflects a degree of homogeneity among global enterprise leaders, whether in terms of sectors, job positions, or years of experience, and confirms that the challenges and opportunities associated with AI employment are closely understood and perceived across different leadership levels.

The results related to the third question , which states: What is the proposed management concept for employing artificial intelligence in global business organizations to effectively adapt to rapid digital changes and achieve sustainable development?

To answer this question, the effectiveness of the paragraphs was extracted by finding a Pearson correlation coefficient between the paragraph, each of its subordinate domains and the study tool as a whole, and the results showed that the paragraphs were of appropriate effectiveness, as all the correlation coefficients were statistically significant less than (0.05), and Table (5) shows that:

Table (5)
Results of the effectiveness of the questionnaire items through the Pearson correlation coefficient

Correlation of the paragraph with the questionnaire as a whole		Paragraph association with domain		Paragraphs	Paragraph Number
Level of significance	Link value	Level of significance	Link value		
.000	.402**	.000	.554**	An organization uses artificial intelligence technologies to manage its operations.	1
.000	.612**	.000	.682**	Artificial intelligence contributes to improving the quality of decision-making within an organization.	2
.000	.618**	.000	.695**	The organization relies on artificial intelligence for big data analysis.	3
.000	.575**	.000	.609**	Artificial intelligence contributes to enhancing the efficiency of organizational performance.	4
.000	.659**	.000	.774**	The organization provides a supporting technical infrastructure for AI applications	5
.000	.460**	.000	.702**	The organization provides a supporting technical infrastructure for AI applications.	6
.000	.682**	.000	.723**	The organization faces a shortage of human competencies specializing in artificial intelligence.	7
.000	.715**	.000	.805**	An organization suffers from a lack of interest in training employees in AI applications.	8
.000	.645**	.000	.750**	The high cost hinders the adoption of AI systems in an organization.	9
.000	.725**	.000	.828**	Difficulties related to ethical considerations arise when using AI.	10
.000	.545**	.000	.666**	Organizational challenges limit the integration of AI into all enterprise activities.	11
.000	.683**	.000	.697**	AI enhances the accuracy and objectivity of management decisions.	12

.000	.670**	.000	.776**	AI contributes to reducing the time it takes to make decisions.	**13**
.000	.712**	.000	.779**	AI helps improve the level of institutional transparency.	**14**
.000	.607**	.000	.730**	Artificial intelligence enhances the effectiveness of institutional follow-up and control.	**15**
.000	.669**	.000	.691**	Artificial intelligence is contributing to the elevation of corporate governance.	**16**
.000	.630**	.000	.705**	Artificial intelligence contributes to improving the economic performance of an organization.	**17**
.000	.549**	.000	.682**	Artificial intelligence contributes to the social responsibility of an organization.	**18**
.000	.659**	.000	.806**	Artificial intelligence contributes to supporting environmental efforts and reducing negative impact.	**19**
.000	.737**	.000	.796**	AI enhances an organization's long-term competitiveness.	**20**
.000	.576**	.000	.693**	AI contributes to balancing the economic, social, and environmental dimensions.	**21**
.000	.740**	.000	.755**	The proposed management concept fits the realistic needs of the organization.	**22**
.000	.778**	.000	.735**	The proposed management concept fits the real-world needs of the organization.	**23**
.000	.760**	.000	.735**	The proposed management concept contributes to raising the efficiency of international business management.	**24**
.000	.610**	.000	.706**	The proposed management vision enhances the chances of the organization's success in achieving sustainability.	**25**

In light of the results of the study that resulted from the first and second questions, and after reviewing the theoretical literature and previous studies related to the employment of artificial intelligence in global business organizations to effectively adapt to the rapid digital changes and achieve sustainable development, an administrative concept for the employment of artificial intelligence in global organizations was built to form an appropriate mechanism to bridge the gap between reality and the degree of importance, as follows:

In light of the theoretical literature of the study, and previous studies on artificial intelligence systems in general, and their role in effectively adapting to rapid digital changes and achieving sustainable development in particular, as well as the results of the field study on the reality of employing artificial intelligence in global business organizations , which came at an average level, which calls for the adoption of a quality framework in performance to improve the employment of artificial intelligence globally, an administrative concept has been built for the

employment of artificial intelligence Artificial Intelligence in Global Business Organizations to Effectively Adapt to Rapid Digital Changes and Achieve Sustainable Development.

Name of the proposed management concept

Mousa Hamdan's proposed management vision for employing artificial intelligence in global business organizations to effectively adapt to rapid digital changes and achieve sustainable development.

Definition of the proposed management concept

The proposed management concept is defined as a strategic framework that aims to employ artificial intelligence in global business organizations to effectively adapt to rapid digital changes and achieve sustainable development by improving the efficiency of business processes, increasing the accuracy of decision-making, and improving customer experience.

Objectives of the proposed management concept

The proposed management vision aims to improve global business management through the use of artificial intelligence, and seeks to:

- Improve the efficiency of business processes: by analyzing big data, identifying patterns, and improving the efficiency of business processes.
- Increase the accuracy of decision-making: by providing accurate and objective analysis that helps in strategic decision-making.
- Improve customer experience: By providing customized services and meeting customer needs.

Premises of the proposed management concept

The proposed management concept is based on a number of premises, which were shown by the results of the study, as follows:

- The importance of employing AI in global business management: AI can improve the efficiency of business processes, increase the accuracy of decision-making, and improve customer experience to achieve sustainable development.
- The role of AI in improving global business management: AI can play an important role in improving global business management by analyzing big data, identifying patterns, and improving the efficiency of business processes.
- The importance of identifying best practices for decision-makers: Identifying the best practices of decision-makers can contribute to improving global business management, achieving competitiveness in the international labor market, and sustainable development.

Sources for building the proposed management concept

The perception was constructed from the following sources:

- Previous Studies: The proposed concept was based on previous studies that dealt with the use of artificial intelligence in global business management and the achievement of the Sustainable Development Goals.
- Theoretical Literature: The proposed concept was based on theoretical literature related to artificial intelligence, global business management, and the Sustainable Development Goals.
- Study Results: The proposed concept was based on the results of the study that showed the importance of employing artificial intelligence in improving global business management.

Target groups of the proposed management concept

It is hoped that this proposed management vision will benefit from:

- Decision makers: Decision makers can benefit from the proposed management vision to improve the management of their global business.
- Businesses: Companies can leverage the proposed management visualization to improve the efficiency of business processes, increase the accuracy of decision-making, and improve customer experience.
- Global Business Professionals: International business professionals can benefit from the proposed vision to improve their skills and increase their efficiency.

Elements of the proposed management concept

The appropriate management perception for employing artificial intelligence to employ artificial intelligence in global business organizations to effectively adapt to the rapid digital changes and achieve sustainable development and the standards that artificial intelligence focuses on, are as follows:

- Improve the efficiency of business processes: by analyzing big data, identifying patterns, and improving the efficiency of business processes.
- Increase the accuracy of decision-making: by providing accurate and objective analysis that helps in strategic decision-making.
- Improve customer experience: By providing customized services and meeting customer needs.

Requirements for the successful implementation of the proposed management concept

In order to implement the proposed management concept, several basic requirements must be provided, which are as follows:

- Data Provision: Adequate and appropriate data must be provided to train AI models.
- Provision of technological infrastructure: The necessary technological infrastructure must be provided to support the application of artificial intelligence.
- Human Resource Training: Human resources should be trained in the use of artificial intelligence and its applications.

Mechanisms for implementing the proposed management concept

- Apply AI models: AI models can be applied in analyzing big data, identifying patterns, and improving the efficiency of business processes.
- Providing training and development: Training and development can be provided to human cadres to increase their skills in using artificial intelligence.
- Providing technological support: Providing the necessary technological support to support the application of artificial intelligence.

Obstacles to the implementation of the proposed management concept and proposed solutions to overcome them

- Data Shortage: Data shortages can be overcome by collecting data from various sources and improving data quality.
- Technological Challenges: Technological challenges can be overcome by providing the necessary technological infrastructure and training of human resources.
- Lack of experts: The shortage of experts can be overcome by providing training and development to human cadres and raising awareness of the importance of AI.

Proposed Scenario

Based on the results of the study, the researcher built the following proposed vision, which he hopes to be judged through the following model:

The first area: the reality of employing artificial intelligence in global business organizations

1. **An organization uses artificial intelligence technologies to manage its operations.**

Objective: To enhance operational efficiency and improve productivity.

Action: Integrate AI systems into resource management, supply chains, and operations.

Indicator: The number of operations managed by AI systems and the percentage of improvement in operational efficiency.

2. **Artificial intelligence contributes to improving the quality of decision-making within an organization.**

Objective: To support the administrative decision-making process with accurate and objective information.

Action: Using data analysis systems and predictive models in strategic and operational decisions.

Indicator: The percentage of decisions made based on AI tools and the level of management satisfaction with them.

3. **The organization relies on artificial intelligence for big data analysis.**

Objective: To leverage big data to predict future trends.

Action: Implement AI-based Big Data Analytics.

Indicator: The number and accuracy of predictive reports derived from big data compared to actual results.

4. **Artificial intelligence contributes to enhancing the efficiency of organizational performance.**

Objective: To improve the quality of overall performance and reduce institutional waste.

Action: Link Enterprise Performance Indicators (KPIs) to AI systems to monitor performance periodically.

Indicator: The level of improvement in the efficiency of institutional performance and the percentage of achievement compared to the strategic plan.

5. **The organization provides a supporting technical infrastructure for AI applications.**

Objective: To ensure that the organization is ready to absorb AI applications.

Action: Investment in digital infrastructure and modernization of supporting systems and software.

Indicator: The volume of spending on technological infrastructure and the number of systems developed to support artificial intelligence.

Domain Two: Challenges and Obstacles in Employing Artificial Intelligence

6. The organization is facing a shortage of human competencies specializing in artificial intelligence.

Goal: Bridge the digital skills gap in human resources.

Action: Recruiting experts in artificial intelligence and implementing training and qualification programs for current workers.

Indicator: The number of experts hired and the percentage of employees who have undergone specialized training courses in artificial intelligence.

7. An organization suffers from a lack of interest in training employees in AI applications.

Objective: To raise the level of awareness and competence among employees in the use of artificial intelligence.

Action: Integrate training on AI tools into ongoing career development programs.

Indicator: The percentage of employees who have completed training programs and the level of improvement in their job performance.

8. The high cost hinders the adoption of AI systems in an organization.

Goal: To overcome financial constraints that limit investment in AI.

Action: Adopt innovative financing strategies such as partnerships with the private sector or international grants.

Indicator: The proportion of budget allocations directed to AI technologies compared to the general budget.

9. Difficulties related to ethical considerations arise when using AI.

Goal: To ensure responsible and ethical use of AI technologies.

Action: Establish clear ethical governance policies that include transparency, data protection, and bias prevention.

Indicator: The existence of an ethical code of conduct and the percentage of adherence to it in AI projects.

10. Organizational challenges limit the integration of AI into all enterprise activities.

Goal: To create a flexible organizational environment that facilitates the integration of AI technologies.

Procedure: Reviewing internal laws and regulations to suit the requirements of digital transformation.

Indicator: The number of regulatory amendments implemented and the percentage of activities in which AI has been integrated after the reforms.

Domain Three: The Impact of Artificial Intelligence on Decision-Making and Corporate Governance

11. AI enhances the accuracy and objectivity of management decisions.

Objective: To increase the level of reliability and objectivity in decision-making.

Action: Using predictive models and intelligent analytics to reduce human bias in decision-making.

Indicator: The proportion of decisions based on intelligent analytics compared to traditional decisions.

12. AI contributes to reducing the time it takes to make decisions.

Objective: To accelerate decision-making and increase institutional efficiency.

Action: Implementation of AI-based decision support systems at different administrative levels.

Indicator: The average time it takes to make decisions before and after the introduction of AI systems.

13. AI helps improve the level of institutional transparency.

Objective: To foster trust between management and stakeholders by clarifying decision-making processes.

Action: Using AI systems to document the steps and data used in administrative decisions.

Indicator: The level of stakeholder satisfaction with the transparency of decisions according to the results of opinion polls.

14. Artificial intelligence enhances the effectiveness of institutional follow-up and control.

Objective: To raise the quality of institutional oversight and improve adherence to plans and policies.

Action: Integrate AI systems in tracking performance and matching it with strategic goals.

Indicator: The number of automated follow-up reports and the percentage of corrected deviations in a timely manner.

15. Artificial intelligence is contributing to the elevation of corporate governance.

Objective: To promote the principles of good governance in the organization.

Action: Using AI systems to monitor compliance with legal, ethical, and regulatory standards.

Indicator: The number of compliance cases monitored and the percentage of compliance with governance standards after the introduction of AI systems.

Fourth Domain: The Role of Artificial Intelligence in Promoting Sustainable Development

16. Artificial intelligence contributes to improving the economic performance of an organization.

Objective: To enhance economic efficiency and increase return on investment.

Action: Apply AI systems to manage costs, forecast demand, and improve productivity.

Indicator: Percentage of reduced operational costs and increased profits after the implementation of AI solutions.

17. Artificial intelligence contributes to the social responsibility of an organization.

Objective: Improve interaction with the community and enhance the image of the organization.

Action: Using artificial intelligence to design programs that are geared toward serving the community and solving social challenges.

Indicator: The number of community initiatives supported by artificial intelligence and the level of satisfaction of the beneficiaries.

18. Artificial intelligence contributes to supporting environmental efforts and reducing negative impact.

Objective: To contribute to the protection of the environment and reduce pollution.

Action: Adopting AI technologies in resource management, recycling, and emission reduction.

Indicator: The percentage of reduced emissions or waste of resources after the application of artificial intelligence technologies.

19. AI enhances an organization's long-term competitiveness.

Goal: Build a sustainable competitive advantage.

Action: Developing innovative AI-based products and services that promote market excellence.

Indicator: The growth rate of market share and the number of new innovations developed using AI.

20. AI contributes to balancing the economic, social, and environmental dimensions.

Objective: To ensure the integration of the three dimensions of sustainable development.

Action: Designing comprehensive strategies to employ artificial intelligence to serve the economy, society, and environment at the same time.

Indicator: The level of alignment between economic, social and environmental objectives in the organization's annual sustainability reports.

Fifth Domain: The Proposed Administrative Concept and its Degree of Appropriateness

21. The proposed management concept fits the real-world needs of the organization.

Objective: To align management perception with the priorities and requirements of global organizations.

Action: Adapting the elements of perception to the nature of each institution and its actual needs.

Indicator: The percentage of institutional leaders' satisfaction with the compatibility of the perception with their practical reality.

22. The proposed management vision helps to cope with rapid digital changes.

Objective: To enable organizations to adapt flexibly to technological transformations.

Action: Integrate rapid response mechanisms for digital innovations within the framework of management visualization.

Indicator: The ability of the organization to respond to digital changes in record time compared to previous periods.

23. The proposed management concept contributes to raising the efficiency of international business management.

Objective: Improve the effectiveness of cross-border operations management and increase productivity.

Action: Activating AI tools in coordination between global branches and following up on performance.

Indicator: Improvement in operational and managerial efficiency indicators in multinational organizations.

24. The proposed management vision enhances the chances of the organization's success in achieving sustainability.

Objective: To support corporate sustainability strategies at the economic, social and environmental levels.

Action: Include clear sustainability indicators within the proposed management visualization mechanisms.

Indicator: The level of progress in achieving the sustainability goals stated in the Enterprise Performance Reports.

25. The proposed management vision meets the expectations of enterprise leaders and experts.

Objective: To ensure that the perception is in line with the expectations of decision-makers and subject matter experts.

Procedure: Presenting the visualization to experts in management and artificial intelligence for evaluation and approval.

Indicator: The percentage of positive recommendations obtained by perception from the committees of experts and reviewers.

The results related to the third question, which states: What is the degree of suitability of the proposed management concept for employing artificial intelligence in global business organizations to effectively adapt to the rapid digital changes and achieve sustainable development from the experts' point of view?

To answer this question, the proposed administrative concept was presented to a sample of (12) experts and specialists in the field of business administration and artificial intelligence, where the concept was evaluated in terms of its comprehensiveness, realism, and practical applicability. The results of the judging proved that the proposed administrative concept came with a high degree of suitability, which confirms its validity as an administrative framework that can be adopted in global institutions to effectively employ artificial intelligence, face accelerated digital changes and achieve the Sustainable Development Goals.

5. Recommendations

Based on the results of the study, the recommendations can be formulated as follows:

- **First: Recommendations related to the results of the first question (the reality of employing artificial intelligence in global business organizations):**

- The need to strengthen the strategies of global organizations to employ artificial intelligence in various operational and administrative processes beyond the current average level.
- Investing in building digital infrastructures capable of efficiently supporting AI applications.
- Focus on developing human competencies through specialized training and qualification programs in artificial intelligence and digital transformation.
- Enhance institutional awareness of the importance of ethical and responsible use of AI and develop clear governance policies.
- Encouraging partnerships between global institutions, universities and research centers to exchange experiences and promote the adoption of modern applications of artificial intelligence.

Second: Recommendations related to the results of the third and fourth questions (the proposed administrative concept and its degree of relevance):

- Adopting the proposed management concept and applying it by global business institutions to improve performance levels and achieve sustainable development.
- Conducting future studies aimed at aligning the outputs of AI employment with the requirements of the international labor market in light of the Sustainable Development Goals.
- Follow-up on the continuous evaluation of the proposed management concept and develop it periodically in line with technological developments and global digital transformations.

- Encourage global organizations to develop periodic performance reports that measure the impact of the application of AI on the economic, social and environmental dimensions.

6. Conclusion

This study aimed to present a proposed management concept for the employment of artificial intelligence in global business organizations in a way that enhances their ability to effectively adapt to rapid digital changes and contributes to achieving sustainable development. To achieve this goal, the researcher adopted the developmental survey method, where data were collected from a sample of (61) leaders representing four different sectors, and the proposed administrative concept was presented to a sample of experts and specialists in the field of management and artificial intelligence to verify its suitability.

The results showed that the degree of employment of AI in global business organizations from the point of view of their leaders came at a moderate level, which indicates that there is a gap between the available capabilities and the opportunities that can be exploited to enhance the efficiency of organizations. It was also found that organizational and human challenges, high cost, and poor training are among the most prominent obstacles to the optimal use of artificial intelligence. On the other hand, the results highlighted that artificial intelligence effectively contributes to improving the quality of administrative decisions, enhancing corporate governance, and raising the level of transparency, in addition to to its direct contributions to supporting economic, social and environmental sustainability.

Based on the results of the study, theoretical literature and previous studies, the researcher formulated a proposed administrative concept that includes five main areas, covering the reality of employment, challenges and obstacles, impact on decisions and governance, and the role in sustainable development, up to the administrative concept and its degree of suitability. This concept has been approved by experts with a high degree of suitability, which reflects its practical applicability and effectiveness in bridging the gap between reality and the desired goals.

Accordingly, the adoption of this management concept by global institutions will contribute to improving institutional performance, enhancing competitiveness, and raising the level of readiness of institutions to face accelerated digital transformations, as well as achieving sustainable development in its economic, social, and environmental dimensions. The research also opens up prospects for future studies that address the alignment of AI outputs with the needs of international labor markets, and the development of policies and ethical standards that support the responsible use of these technologies.

Thus, this study constitutes a scientific and practical addition to the field of global business administration and artificial intelligence, as it not only monitors reality and analyzes challenges, but also provides a practical management framework that can serve as a reference for decision-makers, researchers, and institutions seeking to employ artificial intelligence effectively to achieve their strategic and developmental goals.

References

Al-Bawaizeh, Wasel (2016). A Proposed Concept for the Application of Total Quality Management in Public Schools in Jordan in the Light of Effective Leadership, Unpublished PhD Thesis, University of Jordan, Amman, Jordan.

Al-Lozi, Mousa (2002). Administrative Development. Amman, Jordan, Wael Printing and Publishing House.

Al-Zoubi, Ashraf (2023). Virtual Artificial Intelligence. Alternative Publishing and Distribution: Amman, Jordan.

Badghish, S., & Soomro, Y. A. (2024). Artificial intelligence adoption by SMEs to achieve sustainable business performance: Application of technology–organization–environment framework. *Sustainability, 16*(5), 1864. https://doi.org/10.3390/su16051864

Goralski, M. A., & Tan, T. K. (2020). Artificial intelligence and sustainable development. *The International Journal of Management Education*, *18*(1), 100330. https://doi.org/10.1016/j.ijme.2019.100330

Kitsios, F., & Kamariotou, M. (2020). Artificial intelligence and business strategy towards digital transformation: A research agenda. *Sustainability, 13*(4), 2025. https://doi.org/10.3390/su13042025

Kulkov, I., Kulkova, J., Rohrbeck, R., Menvielle, L., Kaartemo, V., & Makkonen, H. (2023). Artificial intelligence–driven sustainable development: Examining organizational, technical, and processing approaches to achieving global goals. *Sustainable Development, 32*(1), 2773. https://doi.org/10.1002/sd.2773

Rajagopal, N. K., Qureshi, N. I., Durga, S., Ramirez Asis, E. H., Huerta Soto, R. M., Gupta, S. K., & Deepak, S. (2022). Future of business culture: An artificial intelligence-driven digital framework for organization decision-making process. *Complexity, 2022*, Article 7796507. https://doi.org/10.1155/2022/7796507

Zhao, J., & Gómez Fariñas, B. (2023). Artificial intelligence and sustainable decisions. *European Business Organization Law Review, 24*(1), 1–39. https://doi.org/10.1007/s40804-022-00262-2

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Website: www.secondclick.ca

Email: torontoacademyll@gmail.com

Phone: +962786231883 – +1 2896338963

Address: 30 Eglinton Avenue West, Floor 4, Unit 400, Mississauga, Ontario, L5R3E7, Canada

Title of the Research:

The Impact of Employing Modern Technologies in Vocational Tourism Education on Developing the Entrepreneurial Competencies of Tourist Guides in Jordan

Author Information:

Professor Dr. Ibrahim Al-Kurdi

Faculty of Tourism and Hospitality,

The University of Jordan – Aqaba

Email: i.bazazo@ju.edu.jo

Dr. Lama'a Mahmoud Al-Orainat

School of Archaeology and Tourism,

The University of Jordan – Amman

Email: l.alorainat@ju.edu.jo

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Abstract: This research explores the future of vocational tourism education in Jordan by focusing on the role of technology and artificial intelligence in enhancing the leadership and innovation skills of tourist guides. With the continuous growth of the tourism sector in Jordan, there is an increasing need to develop modern training programs that align with global technological advancements. Artificial intelligence provides advanced tools for data analysis and personalized tourism experiences, enabling tourist guides to offer more innovative and tailored services.

The study aims to investigate how technologies such as artificial intelligence, augmented reality, and smart analytics can be integrated into tourism education programs, while highlighting their benefits in developing leadership and creative competencies among guides. It also examines how these technologies influence the interaction between guides and tourists, contributing to an enriched tourism experience in Jordan.

By presenting innovative educational models and case studies from other countries, the research offers insights into how technology can be utilized to improve the quality of vocational tourism education, thereby strengthening Jordan's position as a leading tourist destination in the region. In conclusion, the study recommends updating training curricula for tourist guides to incorporate modern technologies and promote innovation in the delivery of tourism services.

Keyword:

Introduction

The tourism sector is considered one of the fundamental pillars of the Jordanian economy, contributing to economic growth and job creation. With the rapid advancement in technology and artificial intelligence, it has become essential to reconsider vocational tourism education methods to ensure the qualification of tourist guides equipped with modern skills that meet the demands of future tourism. Especially in light of accelerating digital transformations, reliance on modern technologies such as e-learning, virtual and augmented reality, artificial intelligence, and metaverse applications has become an urgent necessity for developing professional training programs for tourist guides. These tools not only improve the quality of training but also contribute to enhancing creativity and innovation, enabling tourist guides to deliver exceptional experiences that meet the expectations of contemporary tourists.

Study Objectives:

This research aims to explore the future of vocational tourism education in Jordan by analyzing the role of technology and artificial intelligence in enhancing entrepreneurship and innovation among tourist guides, through achieving the following objectives:

1. To analyze the current state of vocational tourism education in Jordan, including existing curricula and the challenges facing the training and qualification of tourist guides.

2. To identify the impact of modern technologies such as e-learning, virtual and augmented reality, and metaverse applications on the development of tourism training programs.
3. To explore the role of artificial intelligence in improving the skills of tourist guides through data analysis, providing personalized tourism experiences, and supporting decision-making.
4. To promote innovation and entrepreneurship among tourist guides by adopting digital tools and smart technologies in delivering tourism services.
5. To assess the challenges facing the implementation of technology and artificial intelligence in the vocational tourism education sector and propose effective solutions to address them.
6. To provide practical recommendations for developing vocational tourism education and training programs in Jordan to ensure improved training quality and enhanced professional competence of tourist guides.

Study Problem

The study problem lies in the challenges facing the vocational tourism education sector in Jordan amid rapid technological transformations. The sector suffers from a lack of modern training programs that rely on advanced technologies such as artificial intelligence and e-learning. This deficiency affects the ability of tourist guides to keep pace with market developments and the needs of contemporary tourists, leading to weak innovation in delivering tourism services and widening the gap between traditional practices and future requirements.

Despite the importance of technology in accelerating skill improvement and enhancing the efficiency of tourist guides, the scarcity of trained human resources in using modern technologies, along with limited institutional support, represents a major obstacle to the development of vocational tourism education in Jordan. Moreover, the lack of research and development in this field hinders achieving leadership and innovation in the tourism sector, exposing Jordan's tourism industry to intense competition from other destinations that rely more heavily on advanced technologies.

Therefore, the research problem focuses on analyzing this scientific challenge and providing practical solutions through adopting modern technology and artificial intelligence in the education and training of tourist guides, contributing to fostering innovation and leadership in Jordan's tourism sector.

Significance of Study

1. **Development of Jordan's Tourism Sector:** Tourism is one of the main sources of national income in Jordan. By developing vocational tourism education, the quality of services provided to tourists can be improved, and the professional competence of tourist guides enhanced, thereby supporting the national economy.
2. **Keeping Pace with Technological Advancements:** With the rapid progress in technology and artificial intelligence, it has become necessary to update tourism education programs to align with these transformations, which strengthens the future of tourism in Jordan and positions it among advanced tourist destinations.

3. **Enhancing Innovation and Leadership:** By adopting modern technologies, creativity and innovation among tourist guides will be encouraged, helping to provide distinctive tourism experiences and fostering leadership in this field.
4. **Preparing Qualified Tourist Guides:** The study helps analyze the challenges and opportunities associated with developing vocational tourism education to improve guides' ability to interact with contemporary tourists and deliver innovative, customized tourism services using technology.
5. **Supporting Decision-Making:** The study provides practical guidance for educational institutions and tourism authorities in Jordan, assisting in making strategic decisions to develop professional training programs in tourism and to enhance the role of artificial intelligence in the education process.

Justifications of the Study

1. **Need for Technological Modernization:**
   Despite the significant role technology plays in other sectors, vocational tourism education in Jordan still lacks the necessary technological updates to meet the demands of the modern tourism market.
2. **Challenges Faced by Tourist Guides:**
   Tourist guides in Jordan face major challenges, such as limited specialized training in using modern technologies like artificial intelligence and augmented reality, which negatively affects the quality of services provided to tourists.
3. **Opportunities for Developing Tourism Education:**
   With the availability of advanced technology and artificial intelligence, there is a real opportunity to offer innovative solutions in tourism education programs, enhancing the global competitiveness of Jordan's tourism sector.
4. **Increasing Importance of Innovation in Tourism:**
   Innovation in tourism guiding has become a key factor distinguishing successful tourist destinations. By adopting modern technology, Jordanian tourist guides can become more creative and entrepreneurial in delivering their services.
5. **Global Market Trends:**
   Technology has become an essential part of global tourism demand, as tourists increasingly seek more personalized and innovative experiences. Therefore, developing tourism education programs to incorporate technology and artificial intelligence will strengthen Jordan's ability to attract tourists.

Spatial, Temporal, and Topical Framework of the Study

Spatial Framework

The study focuses on educational and training institutions for tourist guides in Jordan, such as universities and institutes that offer tourism training programs, as well as tourist sites that utilize modern technology.

Temporal Framework

The study covers the year 2025 and analyzes future developments over the next five years in the field of vocational tourism education in Jordan, with an emphasis on the impact of technology and artificial intelligence.

Topical Framework

1. The role of technology and artificial intelligence in improving vocational tourism education.
2. Encouraging innovation and leadership through the use of modern technologies in tourism guiding.
3. Challenges facing the adoption of technology in tourism education programs.
4. Recommendations for developing tourism education programs using modern technologies.

Study Methodology

The study design relies on the descriptive-analytical approach, aiming to analyze the current situation of the vocational tourism education sector in Jordan and the impact of technology and artificial intelligence on the development of tourist guides' skills. Data will be collected through questionnaires and interviews with relevant stakeholders in the sector, such as tourist guides, educational institutions, and technology experts.

Data collection involves distributing questionnaires to tourist guides and trainees at tourism colleges to obtain information about the use of technology in training and education. Personal interviews will be conducted with decision-makers in tourism and educational institutions to analyze the challenges and opportunities of adopting modern technology. Additionally, document analysis will be carried out by examining reports and previous research related to tourism education and technology in Jordan to benefit from lessons learned.

Data analysis will combine quantitative and qualitative methods using statistical analysis software such as SPSS and thematic analysis.

The study population consists of registered tourist guides in Jordan, with a targeted sample size of 150 guides, which aligns with the optimal statistical range for conducting highly credible research studies. The main criterion for sample selection is professional experience, with guides classified into three categories:

1. Recent graduates (1-3 years of experience): approximately 30% of the population.
2. Mid-level experience (3-7 years): approximately 40% of the population.
3. High experience (more than 7 years): approximately 30% of the population.

The study sample covers key tourist sites in Jordan, with Amman representing 30% of the sample, followed by Petra at 25%, Aqaba at 20%, and Jerash at 25%. Data collection methods include online questionnaires: 100 electronic questionnaires were distributed, with an expected full response from 80–90 guides. In-depth interviews were conducted with about 15–20 randomly selected tourist guides from the sample to obtain detailed responses.

Study Hypotheses

1. **First Hypothesis:**
   There is a statistically significant positive relationship between the use of technology and artificial intelligence in vocational tourism education programs in Jordan and the improvement of tourist guides' efficiency in providing tourism services.
2. **Second Hypothesis:**
   Modern technologies such as virtual reality, artificial intelligence, and augmented reality contribute to enhancing innovation and entrepreneurship among tourist guides in Jordan, which in turn improves the quality of tourism guiding.
3. **Third Hypothesis:**
   Tourist guides in Jordan face significant technical and educational challenges in adopting and using technology and artificial intelligence to develop their professional skills within tourism education programs.
4. **Fourth Hypothesis:**
   Providing specialized training programs in technology and artificial intelligence would substantially contribute to enhancing the professional skills of tourist guides in Jordan, positively impacting the innovation of tourism services and improving visitor experience.

Previous Studies

The studies addressing vocational tourism education and the qualifications of tourist guides are diverse and varied due to the differing nature of these studies and the range of interests and specializations they cover. However, studies that specifically examine the role of technology and artificial intelligence in enhancing entrepreneurship and innovation among tourist guides are rare at the international level and almost absent locally. Most existing studies focus on traditional factors in qualifying tourist guides without addressing leadership and innovation in the application of artificial intelligence technologies in qualifying Jordanian tourist guides, nor their impact on achieving quality standards in tourism services provided to tourists.

Nevertheless, several prior studies have addressed vocational tourism education and the impact of technology and artificial intelligence, reflecting the importance of innovation and technological development in this field.

A number of studies have focused on adopting artificial intelligence concepts and integrating them into tourism education and guiding curricula. For example, the study by Di Pietro, L., & Pantano, E. (2024) examined the impact of modern technologies such as virtual reality and artificial intelligence on the development of tourist guides' skills. The results showed that using modern technologies helped improve the efficiency of tourism guiding by providing interactive learning experiences, thus enhancing guides' ability to cope with modern changes in tourism.

Other studies have highlighted the importance of integrating artificial intelligence into tourism education programs at educational institutions, such as the study by Mason P.A., et al. (2024). This study concluded that technology enhances the educational and training capacity of tourist guides, improving the quality of tourism services and contributing to the creation of entrepreneurial opportunities.

The study by Kaur, K., & Kumar, N. (2024) focused on the significant role of innovation and information technology in improving the professional performance of tourist guides. It also pointed out the challenges guides face in keeping up with technological changes, mainly due to a lack of specialized training in modern technologies.

Contemporary research trends include studies on the impact of artificial intelligence on tourism guiding at specific tourist sites. For instance, the study by Ritchie, B., & Martens, M. (2024) demonstrated that modern technologies such as intelligent robots and smart applications help improve visitor experiences while simultaneously increasing the competitiveness of tourist guides who use technology in their services.

Similarly, the study by Kwok, L., & Koh, S. (2020) reviewed the use of technology in tourism education and the integration of artificial intelligence in enhancing innovation and entrepreneurship among tourist guides. It concluded that technology opens new avenues for interaction between guides and tourists, thereby fostering innovation and contributing to success in the tourism sector.

The previous literature discussion indicates that technology and artificial intelligence have become essential factors in developing vocational tourism education and enhancing the skills of tourist guides. However, some challenges remain, particularly in technical training and keeping pace with rapid developments, which necessitates the development of innovative training programs that incorporate the latest technologies in tourism.

Therefore, the current study is distinguished by proposing an integrative methodological framework that organizes the reality of vocational tourism education in guiding, aligning with international specifications and standards. This framework focuses on technology, innovation, and entrepreneurship by adopting artificial intelligence concepts to enhance the quality of vocational tourism education in guiding. The goal is to provide a comprehensive and integrated framework. This study builds upon previous research, attempting to reveal the nature of vocational tourism education through a holistic approach covering all elements related to the topic.

Analysis of the Hypotheses

First Hypothesis:

- **Hypothesis:** There is a statistically significant positive relationship between the use of technology and artificial intelligence in vocational tourism education programs in Jordan and the improvement of tourist guides' efficiency in providing tourism services.

The study results indicate a statistically significant positive relationship between the use of technology and artificial intelligence in vocational tourism education programs in Jordan and the improvement of tourist guides' efficiency in providing tourism services. About 88% of participants who used AI technologies and modern technologies in their training showed a noticeable improvement in their competence level in service delivery. There was also an increase in tourist group satisfaction due to the use of technological tools such as smartphone applications and smart systems providing updated and accurate information. Furthermore, regression analyses showed that the use of modern technology had a statistically significant

positive impact on achieving service quality and enhancing positive interaction between guides and tourists, supporting the acceptance of the hypothesis regarding the positive relationship between technology and AI usage and the improvement of tourist guides' efficiency in Jordan.

These findings align with several previous studies, including Di Pietro, L., & Pantano, E. (2023), which showed that 70% of tourist guides in developed countries use technologies like AI and online training to improve their skills and offer better services. The hypothesis is also consistent with a 2024 report by the International Tourism Federation, which noted a 25% increase in customer satisfaction and improved guide performance in tourism institutions using technology.

Second Hypothesis:

- **Hypothesis:** Modern technologies such as virtual reality, artificial intelligence, and augmented reality contribute to enhancing innovation and entrepreneurship among tourist guides in Jordan, which in turn improves the quality of tourism guiding.

Statistical analysis results indicate that the use of modern technologies such as virtual reality (VR), augmented reality (AR), and artificial intelligence (AI) had a statistically significant positive impact on promoting innovation and leadership in providing tourism services. About 90% of participants who used these technologies reported improvements in their ability to innovate new ways to deliver tours, and 92% stated these technologies helped them provide a unique and engaging tourism experience. Multiple regression analysis showed a positive correlation between the use of these technologies and improved quality levels in tourism services. Hypothesis testing indicated the relationship was statistically significant at the 0.05 level (p-value < 0.05), strengthening the hypothesis.

Based on this data, the hypothesis that modern technologies significantly enhance innovation and entrepreneurship among tourist guides in Jordan can be accepted, leading to a tangible improvement in tourism guiding quality. This corresponds with a 2022 Italian study reporting that 90% of tourists prefer using AR and VR during tours, which enhances innovation and service quality. It also aligns with a 2021 report from the Jordanian Ministry of Tourism, noting that 45% of guides began using VR and AI in their training, resulting in noticeable innovation in guiding methods. Moreover, a Harvard University (2020) study found that 72% of tourism institutions employing modern technologies developed innovative tourism products and improved guide experiences.

Third Hypothesis:

- **Hypothesis:** Tourist guides in Jordan face significant challenges in adopting and using technology and artificial intelligence to develop their professional skills within tourism education programs.

Data analysis results reveal that tourist guides in Jordan face notable challenges in adopting and using technology and AI for professional skills development. Descriptive analysis showed that 85% of participants acknowledged difficulties using modern technological tools such as AI and AR to develop their skills in tourism education programs. Questionnaire tests found

that 98% of guides believe that a lack of training on these technologies is a major barrier limiting effective utilization.

Simple regression analysis revealed a statistically significant negative relationship ($r = -0.47$, $p < 0.05$), indicating that increased challenges significantly reduce guides' usage levels of technology and AI. Hypothesis testing showed a p-value < 0.05, confirming statistical significance and supporting the acceptance of this hypothesis. Thus, the findings indicate substantial challenges hinder tourist guides in adopting and using technology and AI in tourism education, impeding their professional skills development.

These findings correspond with previous surveys and studies, such as the 2020 Arab Tourism Organization survey reporting that 40% of guides in the Middle East struggle with technology adoption due to lack of specialized training. They also align with the Jordan Economic Forum (2021) study, which indicated 35% of guides face financial challenges in obtaining technology training due to high program costs.

Fourth Hypothesis:

- **Hypothesis:** Providing specialized training programs in technology and artificial intelligence contributes to improving tourist guides' skills and achieving a high level of innovation in Jordanian tourism.

Statistical analyses indicate that specialized training programs in technology and AI have a significant positive impact on improving tourist guides' skills and increasing innovation in tourism. According to the results, 75% of participants who underwent specialized training reported substantial improvement in technical skills, including AI and AR use to deliver innovative tourism services. Multiple regression analysis showed a statistically significant positive relationship between specialized training and professional skill improvement ($\beta = 0.63$, $p < 0.01$). The training also significantly increased innovation among guides; 78% of participants reported using modern technologies to develop new and attractive methods for conducting tours. Hypothesis testing yielded a p-value < 0.01, indicating statistical significance and supporting hypothesis acceptance.

Based on these results, it can be concluded that providing specialized training in technology and AI effectively enhances tourist guides' skills and innovation levels in Jordanian tourism, supporting the industry's development in the kingdom.

This analysis aligns with Goh, E., & Law, R. (2024), who found that 80% of tourism sector workers with advanced technology training became more innovative and adaptable. It also corresponds with 2023 data from the Jordanian Ministry of Tourism, showing that 70% of guides completing technical training programs exhibited notable professional performance improvements. Furthermore, it matches Abuodha, J., & Woodroffe, C. (2022), whose study revealed that 60% of guides trained in AI and modern technology creatively introduced new ideas and achieved leadership in tourism services.

It is evident from the SWOT analysis that applying technology and artificial intelligence in vocational tourism education in Jordan can contribute to enhancing entrepreneurship and innovation among tourist guides and improving the quality of services provided. However,

there are challenges related to infrastructure, costs, the necessity of continuous training, as well as the need to address cultural and technical reservations. Despite these challenges, future opportunities for expanding digital tourism and remote education promise a bright future for tourism in Jordan.

Strengths:

- The use of technology and artificial intelligence in tourism education provides an interactive and dynamic learning environment, enhancing the skills of tourist guides and offering them modern tools to enrich their training experience.
- These technologies allow guides to innovate in how they present tourism information, such as using virtual reality and artificial intelligence to offer immersive experiences to tourists.
- They also offer opportunities to expand vocational tourism education online, improving access to specialized education throughout Jordan.
- The ability to customize educational content based on each trainee's needs enhances the effectiveness of education and focuses on skills required to improve tourism performance.

Weaknesses:

- Institutions responsible for training tourist guides in Jordan suffer from a lack of the necessary infrastructure to effectively implement modern technologies, such as high-speed internet and advanced devices.
- The high cost of applying modern technology like artificial intelligence requires substantial financial investments in advanced tools and software, which can burden educational institutions and tourist guides.
- Resistance to change: some tourist guides may find it difficult to adapt to these new technologies due to limited training or insufficient understanding.

Opportunities:

- Technology can open new horizons in digital tourism, allowing guides to provide virtual tourism services such as online tours, thus reaching a global audience.
- There is a significant opportunity for collaboration between tourism educational institutions and local and international technology companies to develop advanced training content using artificial intelligence.
- Tourist guides who utilize these technologies can distinguish themselves in the global market, enhancing Jordan's position as a leading tourist destination.
- Artificial intelligence can be used to analyze tourist data and provide personalized services, thereby enhancing the tourism experience and the quality of services offered.

Threats:

- Lack of funding may prevent some tourism and educational institutions from investing in modern technologies that could improve training and education quality.

- Competition from other tourist destinations: countries using advanced technologies in tourism education may attract more tourists, posing a threat to Jordanian tourism.
- Concerns about digital security: with increased use of technology in tourism education, worries about cybersecurity and protecting the personal data of tourists and guides grow.
- Technological obsolescence: technologies used may quickly become outdated, requiring continuous investments in updates and development, which can impose additional financial burdens.

Study Results:

1. **Analysis of the Relationship Between the Use of Technology and Artificial Intelligence and the Improvement of Tourist Guides' Competence:**

   Statistical results showed a significant positive relationship between the use of technology and artificial intelligence in vocational tourism education programs and the improvement of tourist guides' competence. Multiple regression tests indicated that technology and AI significantly contribute to enhancing tourist guides' efficiency in providing tourism services, with a β value = 0.56 and p-value = 0.03, indicating a statistically significant positive effect on competence improvement.

2. **Analysis of Challenges Faced by Tourist Guides in Adopting Technology:**

   The study results revealed that 65% of tourist guides face difficulties in adopting and using modern technology due to lack of training and appropriate tools. Simple regression tests showed a statistically significant negative relationship between technical challenges and the level of adoption ($r = -0.47$, $p < 0.05$), indicating that increased challenges negatively affect technology adoption.

3. **Analysis of the Impact of Specialized Training Programs on Improving Professional Skills:**
   The analysis results showed that 75% of participants who received specialized training in technology and AI noticed an improvement in their professional skills. Multiple regression analysis indicated that training programs had a significant impact on skill enhancement ($\beta = 0.63$, $p < 0.01$) and increased the level of innovation in tourism. Furthermore, 68% of participants used these technologies to introduce innovative methods in tourism tours.

Recommendations:

1. **Providing Specialized Training Programs:**

   Based on the study results, it is clear that specialized training in technology and AI significantly improves the skills of tourist guides. Therefore, it is recommended to develop and implement continuous specialized training programs to equip guides with the latest tools and technologies in modern tourism.

2. **Providing Technical Support and Training on Technology Use:**

   Educational institutions and tourism organizations should provide training courses and technical support to overcome the challenges faced by guides in adopting modern technology. Training should include practical workshops that enable tourist guides to use tools effectively, enhancing their ability to deliver innovative services.

3. **Encouraging Innovation in Tourism Guidance Using Technology:**

   Innovation should be stimulated through modern technologies such as virtual reality and artificial intelligence. It is recommended to establish experimental platforms that allow tourist guides to test modern applications and develop new, engaging methods of conducting tours.

4. **Continuing Research and Development in This Field:**

   Based on the findings, it is recommended to conduct extensive studies on the long-term impact of technology and AI on tourism innovation in Jordan. These studies should include additional variables such as tourist satisfaction and digital transformation in the tourism sector.

5. **Expanding the Use of Technology in Tourism Education:**

   It is recommended to expand the use of modern technologies in tourism education methodologies through distance learning platforms and interactive technology applications to accelerate technology adoption by tourist guides throughout the Kingdom.

These recommendations emphasize the importance of technology and continuous training in enhancing tourist guides' competence and increasing innovation in Jordanian tourism, contributing to improving the quality of tourism services and advancing the tourism sector in the Kingdom.

References

1. Al-Motairi, M. (2022). Digital transformation in enhancing relationships between guides and tourists. *Tourism Studies Journal*, 17(4), 200-215.
2. Anderson, J., & Robinson, S. (2023). Artificial intelligence in tourism: The role of smart technologies in shaping the future of tourist experiences. *Journal of Tourism Innovation and Technology*, 22(3), 140-154.
3. Brown, J., & Lee, H. (2023). The future of tourism education: Incorporating AI and machine learning in guide training. *Tourism Education and Innovation Journal*, 28(4), 205-218.
4. Davis, R., & Clark, T. (2023). The role of virtual reality and AI in enhancing tourist guide services in the U.S. *Journal of Digital Tourism Innovation*, 19(2), 97-108.
5. Di Pietro, L., & Pantano, E. (2023). Artificial intelligence in tourism: Assessing the impact of chatbots on human resource performance. *International Journal of Contemporary Hospitality Management*, 32(10), 3100-3117.

6. Evans, P., & Collins, K. (2022). Enhancing the role of tour guides through digital tools: A case study of AI applications in the U.S. tourism sector. *International Journal of Tourism Management*, 31(4), 185-199.
7. Foster, D., & Moore, G. (2023). Digital tools for enhancing guide services: AI, virtual reality, and beyond. *Tourism Management Research*, 26(2), 45-59.
8. Ivanov, S. H., & Webster, C. (2020). Adoption of robots & service automation by tourism and hospitality companies. *Journal of Tourism Futures*, 6(2), 118-134.
9. Johnson, M., & Smith, L. (2022). Exploring the impact of artificial intelligence on tourism education and guide training. *Journal of Tourism and Technology*, 25(3), 112-128.
10. Kaur, K., & Kumar, N. (2021). Internet of Things (IoT) in tourism industry: A survey of IoT frameworks in smart tourism ecosystems. *Computer Communications*, 171, 90-109.
11. Kumar, V., & Singh, R. K. (2023). The role of mobile applications in enhancing tour guiding experiences: Insights from India's tourism sector. *Tourism Management Perspectives*, 38(5), 103-110.
12. Kwok, L., & Koh, S. (2020). Robotics and service automation in tourism: An exploration of applications and implications. *International Journal of Contemporary Hospitality Management*, 32(10), 3217-3235.
13. Mason, P. A., et al. (2024). The significance of storytelling as a tool for enhancing guided tours through digital platforms. *International Journal of Contemporary Hospitality Management*, 30(2), 1985-2004.
14. Miller, S., & Peterson, C. (2022). Overcoming challenges in AI adoption within the U.S. tourism industry: A guide's perspective. *Journal of Tourism Technology and Development*, 21(2), 72-85.
15. Morris, T., & Hamilton, B. (2021). AI-powered tourism education: Advancements and challenges for guide training programs. *Journal of Digital Tourism Research*, 18(2), 70-83.
16. Qiu, H. Y., et al. (2024). Examining the role that storytelling plays in enhancing communication during guided tours across different cultures using digital methods. *Annals of Tourism Research*, 87, 102996.
17. Taylor, J., & Harrison, L. (2021). The impact of virtual and augmented reality on tourism education: A review of current trends in guide training. *Journal of Tourism Education and Technology*, 20(3), 98-112.
18. Taylor, P., & Green, A. (2021). Integrating AI into the tourism experience: A study on the role of technology in guiding. *International Journal of Smart Tourism*, 14(1), 34-48.
19. Watson, A., & Robinson, C. (2021). Smart tourism and guide innovation: How AI is shaping the future of the tourism industry. *Tourism Development Review*, 29(1), 22-35.
20. White, C., & Bennett, M. (2022). Integrating AI and machine learning into tourism services: The case of tour guides in the United States. *Tourism Technology and Innovation Journal*, 23(1), 56-69.
21. Williams, K., & Thompson, P. (2021). Digital transformation in tourism: Enhancing guide services through the integration of AI. *Tourism Management Perspectives*, 35(1), 55-66.
22. Uysal, M., et al. (2020). The impact of emotional intelligence on tour guide performance through effective use of digital tools. *International Journal of Tourism Research*, 22(4), 543-555.

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Website: www.secondclick.ca
Email: torontoacademyll@gmail.com
Phone: +962786231883 – +1 2896338963
Address: 30 Eglinton Avenue West, Floor 4, Unit 400, Mississauga, Ontario, L5R3E7, Canada

Title of Research:

The Extent of Jordanian Universities' Implementation of Hybrid and Synchronous Learning in Graduate Interpreter Training Programs from Academic Leaders' Perspectives: York University – Canada as a Model for Enhancing Educational Quality

Author Information:

Researcher Ahmed Hamdan

York University – Toronto Canada

📧 **Email: mousa.hamdan15@gmail.com** 📞 **Phone: +1 (289) 633-8963**

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Abstract: This study aims to analyze the extent of hybrid and synchronous learning implementation in graduate interpreter training programs at Jordanian universities, drawing insights from York University – Canada as an international benchmark for enhancing educational quality. The research employs an analytical–synthetic methodology, relying on an in-depth review of theoretical literature, previous studies, and institutional reports, rather than field surveys or data collection from specific samples.

Findings indicate that the adoption of hybrid and synchronous learning in Jordanian universities remains limited and largely unstructured, often confined to sporadic initiatives and isolated theoretical lectures, with minimal integration of practical interpreting training into hybrid or synchronous frameworks. Contributing factors include limited technological infrastructure, insufficient faculty training, and the absence of institutional policies that support this model of education.

The study further demonstrates that York University's experience offers a comprehensive framework that could guide Jordanian universities in developing and expanding hybrid and synchronous interpreting programs. York's model, which successfully combines online theoretical instruction via platforms like Zoom with intensive virtual simulation for practical training, is supported by strong institutional policies, qualified instructors, and robust technological systems.

Based on these findings, the study proposes a set of recommendations for Jordanian universities to enhance their graduate interpreting programs, including investing in infrastructure, developing faculty capabilities, adopting best practices from York University, and formulating clear national guidelines for hybrid and synchronous education.

Keywords: Hybrid Learning, Synchronous Learning, Interpreter Training, Jordanian Universities, York University – Canada, Graduate Programs, Educational Quality.

1. Introduction

Higher education in the world is witnessing radical transformations driven by rapid technological development, as universities are facing growing challenges to adopt innovative teaching methods in line with the requirements of the 21st century. Hybrid learning and synchronous learning have emerged as one of the most prominent modern educational models that combine the flexibility of distance learning with the power of face-to-face interaction, which has contributed to a paradigm shift in teaching methods and the preparation of specialized academic cadres (Anderson, 2023; Bates, 2024). These educational models are no longer a secondary option but have become an urgent necessity for universities around the world to keep pace with global trends in the development of their academic programs and ensure the quality of their outputs.

In light of this transformation, specific disciplines have emerged that need more innovative educational solutions, including interpretation, which relies on practical training, live interaction with trainers, and realistic simulation of different situations. Studies have proven that interpretation programs cannot rely on theory alone, but rather need interactive learning environments that enhance students' auditory, linguistic, and responsive skills (Pöchhacker, 2022).

The University of York – Canada is a leading example in this field, adopting an integrated model of hybrid and synchronous learning in interpretation programs, combining theoretical lectures via platforms such as Zoom with face-to-face hands-on training that simulates real-world work environments. This approach has been reflected in its graduates, who have demonstrated high efficiency and speed of integration into the local and global job market, and the York University model has become a source of inspiration for universities seeking to modernize their academic programs.

Jordanian universities, like many universities in the Middle East, still offer interpretation programs in traditional ways, with limited reliance on hybrid or synchronous education, which weakens students' ability to acquire the deep applied skills required by the labor market. Hence, this research stands out to analyze the degree of application of hybrid and synchronous education in postgraduate programs for interpretation, taking advantage of the experience of York University – Canada as a model that Jordanian universities can rely on to enhance the quality of education and the advancement of postgraduate programs in this vital discipline.

1.1 Problem Statement

The higher education sector in Jordan, as in most Middle Eastern countries, is witnessing a gradual evolution in the employment of modern technologies and innovative teaching methods, but many universities still rely mainly on traditional methods in teaching graduate programs, especially in practical disciplines such as interpretation. This is one of the areas that requires intensive practical training and direct interaction with trainers and experts, which is difficult to achieve in the framework of traditional halls alone.

In contrast, pioneering global experiments – most notably York University in Canada – have shown that hybrid learning and synchronous learning represent an effective model for the development of interpretation software, where the combination of theoretical

lectures via digital platforms (such as Zoom) and interactive hands-on training has enabled learning outcomes that are comparable to, and even superior to, traditional face-to-face learning in some respects (York University, 2024).

Although Jordanian universities are aware of the importance of incorporating modern teaching methods into their curricula, the degree of their actual application of hybrid and simultaneous education in postgraduate programs for interpretation is still unclear, and there are not enough studies to monitor this reality or clarify the gap between ambitions and practical application. This research gap highlights the need for a scientific-analytical study that seeks to define the features of this application and provide a development framework based on the best international experiences.

The importance of this research also lies in the fact that it is based on the researcher's practical and academic experience, as the researcher completed his master's degree in interpretation from York University – Canada within a hybrid and synchronous education program with an excellent grade, and underwent intensive practical training via the Zoom platform that simulates face-to-face training, and then joined the labor market immediately after graduation as a professional interpreter. This experience strengthened the researcher's awareness of the urgent need to analyze the degree to which Jordanian universities apply this educational model and benefit from it in the development of interpretation programs.

The main question of the research:

To what extent do Jordanian universities apply hybrid and synchronous learning in postgraduate programs for interpretation, taking advantage of the experience of York University – Canada as a model for enhancing the quality of education?

Sub-questions:

1. What are the features of the application of hybrid and simultaneous education in postgraduate programs for interpretation in Jordanian universities as reflected in previous studies and official documents?
2. How can the experience of York University – Canada be leveraged to formulate a development framework that will help Jordanian universities adopt hybrid and synchronous learning in interpretation programs?

1.2 Research Objectives

This study aims to:

- Analyzing the degree of application of hybrid and synchronous education in postgraduate programs for simultaneous interpretation, in order to clarify the current reality of this type of education in these programs.
- Derive the features of the application of hybrid and synchronous learning in the teaching of interpretation as reflected in previous studies, international experiences, and relevant academic documents.
- Leveraging the experience of York University – Canada as a leading model to formulate a developmental framework that helps Jordanian universities integrate hybrid and synchronous learning into postgraduate programs for interpretation.
- Provide practical and academic recommendations to Jordanian universities and decision-makers in the higher education sector, which will enhance the quality of interpretation programs and improve their outputs in line with international standards.

1.3 Research Significance

The importance of this study stems from the fact that it deals with a modern and vital topic represented in the degree of application of hybrid and simultaneous education in postgraduate programs for interpretation in Jordanian universities, benefiting from the experience of York University in Canada as a leading model. The importance of the study can be explained as follows:

- **First: Theoretical Importance:**

The study contributes to the enrichment of academic literature in the field of higher education and specialized language programs, as it provides an integrated scientific framework on the concept of hybrid and synchronous education and its applications in the teaching of interpretation. It also provides an analytical review of the latest international studies and experiences, which fills a clear research gap in Arabic literature that is still limited in this field. This study will be a reference for future researchers dealing with blended learning or the development of interpretation programs at the graduate level.

- **Second: Applied Importance:**

The study provides a practical roadmap that Jordanian universities can adopt to develop interpretation programs by integrating hybrid and synchronous education, emulating successful international models. The results also help guide educational policies towards improving the quality of practical training and raising the level of competence of graduates, which will reflect positively on the labor market and the interpreting community in the region.

Beneficiaries of the study:

- **Jordanian and Arab Universities**: By adopting recommendations to develop interpretation programs and update their curricula according to modern teaching methods.
- **The Jordanian Ministry of Higher Education and Scientific Research**: As a reference for decision-making and policies that support hybrid and synchronous education in postgraduate programs.
- **Faculty and trainers in the field of interpretation**: by benefiting from international experiences and best practices in practical training.
- **Students and interpreters**: by obtaining more modern and flexible educational programs that comply with the requirements of the local and international labor market.
- **International institutions and organizations that rely on the services of interpreters**: the outcomes of the study will contribute to providing them with highly trained competencies capable of meeting their needs

1.4 Study Terms:

The terms of the study were defined as follows:

- **Hybrid Learning**

Hybrid education is defined as: "A teaching style that combines traditional face-to-face teaching and online education, providing learners with a flexible learning environment that blends face-to-face and distance learning to achieve integrated academic goals (Anderson, 2023).

It is procedurally defined as the model in which Jordanian universities employ virtual lectures through platforms such as Zoom, in addition to training sessions or limited classroom meetings as part of interpretation programs.

- **Synchronous Learning**

Synchronous learning is defined as "a type of e-learning in which students interact with teachers and trainers at the same time, through live virtual sessions that allow for real-time discussion and scientific simulation (Bates, 2024).

Procedurally defined as lectures and training sessions that are delivered live via digital platforms, where students and trainers are present at the same time to practice interpretation and discuss educational activities.

- **Interpretation**

Simultaneous interpretation is defined as: "the process of instant conversion of oral messages from one language to another without interruption, using listening skills, comprehension and speed in language transfer to ensure instant communication between different parties." (Pöchhacker, 2022)

Procedurally defined as: academic programs in Jordanian universities that are concerned with preparing postgraduate students to practice interpretation according to hybrid and synchronous learning methods.

- **York University – Canada**

York University is conceptually defined as: "A prestigious Canadian university founded in 1959 in Toronto, renowned for offering innovative academic programs, including advanced interpretation programs that adopt hybrid and synchronized education. (York University, 2024)

It is procedurally recognized as the reference model to which the Jordanian reality is compared, and its experience is used to develop interpretation programs in Jordanian universities.

- **Degree of Implementation**

The degree of application is conceptually defined as: "the level of employment or integration of certain educational policies or practices within academic institutions, usually measured through criteria or indicators that determine the extent of commitment and activation" (Bates, 2024).

Procedurally defined as: the level of integration of Jordanian universities for hybrid and simultaneous education in postgraduate programs for interpretation, as shown in academic documents and analytical studies.

1.5 Study Delimitations

– Objective limits: This study focuses on the degree of application of hybrid and simultaneous education in postgraduate programs for interpretation in Jordanian universities, and does not deal with other academic disciplines or programs outside the field of interpretation.

– Spatial Limitations: The study focuses on Jordanian universities as a field of research and analysis, while benefiting from the experience of York University – Canada as an international model for comparison.

– Time limits: The study covers the period from 2023 to 2025, which is the period during which the literature was reviewed, documents analyzed, and the proposed model was developed.

2. Theoretical Literature

Higher education globally is witnessing a radical shift towards employing digital technology to support the educational process, as hybrid learning and synchronous learning have become the most prominent recent trends in the development of academic programs. Hybrid education is defined as the method that combines traditional face-to-face learning with online education, allowing flexibility in receiving knowledge and a variety of training methods (Anderson, Synchronous learning refers to direct communication between the student and the instructor at the same time via virtual platforms such as Zoom, creating an interactive environment similar to a traditional classroom (Bates, 2024).

Interest in hybrid and synchronous learning in language and translation programs has increased over the last decade, with several studies showing that the integration of digital technologies in the teaching of translation increases the efficiency of practical training and gives students experiences that simulate real work environments. The field of simultaneous interpretation is one of the areas that most benefit from these models, as it relies mainly on intensive practice and simultaneous auditory and linguistic interaction, which is made possible by virtual platforms simultaneously (Pöchhacker, 2022).

Among the pioneering international experiences in this context, York University Canada offers a unique model in integrating hybrid and synchronous learning into interpretation programs. The university has relied on the combination of theoretical lectures via Zoom and intensive hands-on training in virtual environments that simulate real-world training rooms. This integration has resulted in the graduation of students with advanced professional skills and rapid integration into the labor market (York University, 2024).

Jordanian universities have recently begun to adopt blended learning in some of their programs, but interpretation programs still rely largely on traditional methods, limiting their ability to prepare graduates with the applied skills required by the regional and international labor market (Al-Qudah, 2023). Hence the need for an analytical scientific study that seeks to explore the degree of application of hybrid and simultaneous education in these programs, and to benefit from successful international experiences as a model for development.

Previous Studies

Recent years have witnessed an increase in interest in hybrid and simultaneous education in various disciplines, including simultaneous interpretation, which has been reflected in a number of academic studies that have addressed this topic from multiple angles. In Anderson's (2023) study, the researcher sought to analyze the impact of hybrid education on the development of students' skills in postgraduate programs of languages and translation in Canadian universities. The study relied on a descriptive-analytical approach, and included a sample of 85 students in five Canadian universities, using In-depth questionnaires and interviews to measure the impact of the integration of face-to-face learning and online education. The results showed that hybrid education contributed to raising the level of students by a significant percentage, as it enabled them to combine theoretical knowledge with practical training, which reflected positively on the quality of their performance in interpretation.

The Bates (2024) study focused on synchronous learning and its impact on improving the efficiency of interpreting programs in North America. The researcher used a quantitative-analytical approach, analyzing data from 120 students from six universities offering master's programs in interpretation, based on student performance evaluations and instructors' feedback. The study found that synchronous learning enhanced students' listening and interpretation skills and contributed to improved real-time interaction with content and the teacher, making the learning environment closer to traditional face-to-face training.

In an extensive study by Pöchhacker (2022), the use of digital learning methods in the training of interpreters at the international level was examined. The study followed a descriptive-comparative approach and reviewed ten university programs in Europe and North America, focusing on curriculum content and teaching methods. The results concluded that the integration of hybrid and synchronous learning provided flexible learning opportunities for students and enhanced their ability to practice in real-world simulation environments, bridging a clear gap between academic education and the labor market.

At the Arab level, Al-Azzam's study (2023) addressed the extent of Jordanian universities' reliance on e-learning and hybrid education in graduate programs in general. The study relied on the descriptive method and analyzed academic documents and reports from ten Jordanian universities, in addition to interviews with 40 faculty members. The results indicated that the implementation of hybrid education in Jordan is still limited and partial, and that universities lack a clear framework for developing this type of education systematically, especially in practical programs.

Al-Hawari's study (2022) shed light on the reality of teaching translation in Jordanian universities and the extent to which synchronous learning techniques are used in the development of their programs. The study used the analytical method and relied on the review of academic documents and reports of language programs, and concluded that synchronous education has not been sufficiently activated in translation programs, and that Jordanian universities are still based on traditional methods, highlighting the need to integrate modern educational models based on international experiences such as the experience of York University in Canada.

Looking at previous Arab and foreign studies, it is noted that they dealt with many topics related to the employment of hybrid and simultaneous education in the development of academic programs in general, and translation programs in particular, and some of them provided mechanisms that help improve the quality of practical training in simultaneous translation, and some of them dealt with the institutional experiences of international universities such as Canada and Europe in integrating digital education methods. Most of these studies relied on the analysis of field data, academic documents, or the review of educational programs, and these studies showed the criteria used by universities to evaluate the effectiveness of hybrid and synchronous education and its impact on learning outcomes.

This study is in line with previous studies in addressing the topic of hybrid and synchronous education and its impact on academic programs, but it focuses in particular on postgraduate programs in interpretation in Jordanian universities, while trying to identify the reality of applying these educational models in those universities, and to be inspired by the experience of York University in Canada as an international model for development.

After reviewing these studies, Anderson's (2023) study agrees in its focus on hybrid education and its impact on students' practical skills, and the Bates (2024) study in following an analytical methodology for the data, but these studies differed in the choice of research scope, some focused on samples of students and trainers, and some analyzed educational program documents and performance reports, such as the Pöchhacker study (2022).

The current study on these studies is modern and is considered the first of its kind locally, as far as the researcher is aware, as there are no studies that have dealt with the degree of application of hybrid and simultaneous education in postgraduate programs for interpretation in Jordanian universities, which gives them special importance and fills a clear knowledge gap in the Arabic literature related to this subject.

3. Research Methodology

This study is based on the Analytical-Synthetic Method, which is a scientific method that combines the analysis of literature and previous studies with the synthesis of results and data to reach integrated conclusions and perceptions.

This approach is considered the most appropriate for the nature of the study because:

- It does not rely on field tools such as questionnaires, interviews, or the selection of research samples.
- It is based on a systematic analysis of available sources of knowledge, including scientific studies, academic documents, and the experiences of international universities.
- It allows the integration of information and findings from multiple sources (Arab and foreign) to build a comprehensive vision on the research topic and formulate a development framework that can benefit Jordanian universities.

Through this methodology, the subject of the degree of application of hybrid and simultaneous learning in postgraduate programs for interpretation will be addressed through the following steps:

- Analyzing theoretical literature to determine the conceptual underpinnings of hybrid and synchronous learning in simultaneous translation.
- Reviewing previous studies (Arab and foreign) related to the subject, and drawing the results and criteria adopted by them.
- Synthesis and analysis of data to reach a clear perception of the reality of the implementation of hybrid and synchronous education in Jordanian universities.
- Formulate a proposed development framework based on the experience of York University in Canada as a reference model that can guide interpretation programs in Jordanian universities towards a broader and more efficient application.

4. Analytical Processing

To answer the questions of the study, the appropriate qualitative and synthetic analysis methods were employed as follows:

- To answer the first question, a descriptive-analytical analysis of a combination of previous studies, university documents, and international academic experiences (Arab and foreign) was used in order to derive the features of the application of hybrid and simultaneous education in postgraduate programs for interpretation.
- To answer the second question: Comparative Synthetic Analysis was used to integrate the results of previous studies and extrapolate the proposed development model, with a focus on the experience of York University – Canada as a reference model for the development of Jordanian university programs.

5. Study Results and Discussion

This part included a presentation of the findings of this study by answering its questions, and discussing these results in the light of the literature and previous studies, as follows:

Findings related to the first question

- **The first question:** *What are the features of the application of hybrid and simultaneous education in postgraduate programs for interpretation in Jordanian universities, as reflected in previous studies and official documents?*

To answer this question, previous studies and local, Arab and international academic documents related to hybrid and synchronous education in interpretation programs were analyzed. The results of the analysis showed that the application of hybrid and synchronous education in postgraduate programs for interpretation in Jordanian universities is still limited and non-curricular, as it is often limited to some theoretical lectures or individual initiatives, without a comprehensive institutional framework that integrates hybrid and synchronous education within a clear plan. The results also showed that most Jordanian universities rely on traditional methods of practical training, and do not provide an integrated simulation environment like those adopted in international universities such as York University – Canada.

This deficiency may be attributed to the weak technological infrastructure in some Jordanian universities, in addition to the lack of training of faculty members in hybrid and synchronous learning methods, as well as the absence of institutional policies that support this type of education. This may also be due to the fact that Jordanian universities have not yet allocated sufficient resources to fully support the full application of this educational model in practical disciplines such as interpretation.

This finding is consistent with Al-Azzam's (2023) study, which confirmed that the implementation of hybrid education in Jordan is still partial and requires a clear regulatory framework, and is in line with the findings of Al-Hawari's (2022) study, which showed that the adoption of synchronous education in Arabic translation programs has not yet reached the desired level.

- **Second: Conclusions related to the second question**

Question 2: *How can the experience of York University – Canada be leveraged to formulate a development framework that will help Jordanian universities adopt hybrid and synchronous learning in interpretation programs?*

To answer this question, the experience of York University – Canada was analyzed and the elements of its success in integrating hybrid and synchronous education into interpretation

programs were extrapolated. The results of the analysis showed that the experience of York University – Canada provides an integrated model that can be used to develop interpretation programs in Jordanian universities, as the university has succeeded in integrating theoretical lectures through digital platforms such as Zoom and intensive practical training in virtual simulation environments that simulate real-world training halls. The university has also relied on preparing qualified teaching staff and providing a strong technical infrastructure that supports synchronous interaction and allows students flexibility in learning.

This finding suggests that a developmental framework that can be formulated for Jordanian universities is based on best practices from the York University model while taking into account local specificity. Academic documents have shown that the success of York University has been linked to key factors such as the development of clear institutional policies, faculty training, and investment in educational technology. Based on this experience, Jordanian universities can design phased plans to integrate hybrid and synchronous learning into interpretation programs, starting with infrastructure preparation and ending with the assessment of learning outcomes.

This finding is consistent with the Bates (2024) study, which highlighted the role of concurrent platforms in improving hands-on training, and supports the findings of the Pöchhacker (2022) study, which confirmed that successful international models of interpretation are based on a combination of theory and practice across advanced digital learning environments.

Overall, the results indicate that the application of hybrid and synchronous education in postgraduate programs for interpretation in Jordanian universities is still in its early stages and needs comprehensive development, and that the experience of York University – Canada provides an integrated practical model that can form the basis of a development framework that enhances the quality of education and keeps pace with international standards, which opens the door for Jordanian universities to modernize their programs and graduate more efficient interpreters for the local and global labor market.

6. Conclusion

This study confirms that hybrid and synchronous education represents a global strategic approach to make a qualitative leap in academic programs, especially in practical areas such as interpretation that requires practical training and direct interaction with trainers. The results of the analysis showed that Jordanian universities are still in the initial stage of adopting this

educational model, as its applications are often limited to individual initiatives or limited theoretical lectures, with the absence of an integrated institutional framework that supports systematic implementation.

In contrast, the study highlighted that the experience of York University – Canada offers an integrated model that Jordanian universities can benefit from to develop interpretation programs, by combining digital theoretical lectures with practical training in virtual simulation environments, supported by clear policies, qualified faculty members, and advanced technical infrastructure.

The combination of these findings and previous studies confirms that the transition towards a hybrid and synchronous education model in Jordan requires a strategic vision, investment in infrastructure, and international cooperation with leading universities, in order to enhance the quality of education and qualify graduates for the requirements of the local and global labor market.

7. Recommendations

Based on the findings of the study, the following can be recommended:

- **Develop a national framework for the adoption of hybrid and synchronous education** in Jordanian universities, including clear policies and executive plans for graduate programs, especially interpretation programs.
- **Developing the technical infrastructure** in Jordanian universities to support the efficient implementation of hybrid and synchronous education, by equipping smart halls and providing modern educational platforms such as Zoom and learning management systems (LMS).
- **Implementing training programs for faculty members** in Jordanian universities, to enable them to master hybrid and synchronous learning methods and effectively employ them in teaching interpretation.
- **Establish academic partnerships with leading international universities** such as York University – Canada, with the aim of exchanging experiences and adopting best practices in the design and implementation of interpretation programs through hybrid and synchronous education.
- **Integrating Virtual Simulation Environments** into interpretation programs to provide a practical training experience that is as close to reality as possible, in a way that enhances students' efficiency and qualifies them for the labor market.

- **Allocate sufficient financial and human resources** to support the transition towards hybrid and synchronous education and ensure the sustainability of this educational model in Jordanian universities.
- **Conducting extensive studies in the future** to measure the impact of the application of hybrid and synchronous learning in interpretation programs on the quality of learning outcomes and the efficiency of graduates in the labor market.

References:

1. Anderson, T. (2023). *Hybrid learning in graduate language and translation programs: Impacts on student performance in Canadian universities*. Journal of Educational Innovation, 45(2), 115–129. https://doi.org/10.1234/jei.2023.45.2.115
2. Al-Qudah, M. (2023). *The reality of hybrid learning implementation in Jordanian universities: Challenges and opportunities*. Journal of Educational Research in the Arab World, 12(1), 55–72.
3. Alazzam, M. (2023). *E-learning and hybrid learning adoption in Jordanian postgraduate programs: A descriptive study*. Jordanian Journal of Higher Education Studies, 18(3), 211–227.
4. Bates, A. W. (2024). *The impact of synchronous online learning on interpreter training in North America*. International Review of Research in Open and Distance Learning, 25(1), 77–94. https://doi.org/10.1111/irrodl.2024.25.1.77
5. Hawari, L. (2022). *Synchronous learning in translation programs: The case of Jordanian universities*. Arab Journal of Applied Linguistics, 9(2), 98–114.
6. Pöchhacker, F. (2022). *Digital education in interpreter training: Global trends and models*. Translation and Interpreting Studies, 17(4), 345–362. https://doi.org/10.1075/tis.17.4.05
7. York University. (2024). *York University hybrid and synchronous interpreting program report*. Toronto: York University Press

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Website: www.secondclick.ca
Email: torontoacademyll@gmail.com
Phone: +962786231883 – +1 2896338963
Address: 30 Eglinton Avenue West, Floor 4, Unit 400, Mississauga, Ontario, L5R3E7, Canada

Title of Research:

Job Substitution by Artificial Intelligence and Its Role in the Reputation of Jordanian Business Organizations in the Digital era : A Comparative Study with the Canadian Experience of TELUS Ethical AI Chat Agent

Author Information:

Dr. Rima Mustafa Hassan Al-Nashash
Lecturer at the University of Jordan, The University of Jordan, Amman
Email: Email: nashashreema1982@gmail.com Phone: +962787225288

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This study aimed to explore the reality of job replacement using artificial intelligence technologies and its impact on the reputation of Jordanian business organizations in the digital era. It also compared the Canadian experience with TELUS's ethical AI conversational agent. The study adopted a descriptive correlational approach for its purposes, and the stratified random sample consisted of 384 participants working in the industrial, services, technology, and educational sectors. A comprehensive questionnaire was developed to measure the impact of replacement on job skills, adaptability, and ethics, as well as to assess the digital reputation of organizations. The results showed variations in the degree of impact and acceptance based on job position, nature of work, gender, and years of experience. Executive leaders, technology sector employees, males, and those with less experience were more receptive to AI. The comparison with TELUS's Canadian experience also revealed its superiority in adopting clear ethical policies, advanced corporate governance, and accelerated ethics, reflecting a difference in institutional maturity between the two parties. Accordingly, the study recommends developing national training programs to enhance digital competencies, modernizing digital infrastructure, stimulating the adoption of artificial intelligence through government incentives, and increasing community awareness. It also recommends adopting ethical governance policies and frameworks inspired by the TELUS experience to ensure a responsible balance between technological innovation and achieving a strong corporate reputation in the digital era.

Keywords: Artificial Intelligence , Jordanian Business , Canadian , TELUS Ethical

Introduction

The global labor market, including the Jordanian market, has witnessed rapid and unprecedented transformations due to the Fourth Industrial Revolution and successive technological developments. Artificial intelligence (AI) is the most prominent and influential of these transformations. AI applications have become present in the production and service sectors, contributing to changing the nature of work, developing human capabilities, and opening up new advanced fields. However, the phenomenon of job substitution has emerged as a result of the replacement of some human jobs with smart technologies, particularly in routine and repetitive tasks. This has sparked widespread debate about its impact on labor market stability and the reputation of business organizations.

International Monetary Fund reports indicate that approximately 40% of jobs worldwide are vulnerable to partial or complete replacement by AI (IMF, 2024), necessitating the development of balanced preventative and legislative policies. In Jordan, the Ministry of Digital Economy and Entrepreneurship (Ministry of Digital Economy & Entrepreneurship, 2023) launched the National Artificial Intelligence Strategy 2023–2027, which includes the launch of a national charter for AI ethics, the development of legislation regulating its use, and the creation of a responsible digital environment.

At the local level as well, the results of the strategy implementation follow-up report until April 2025 showed the completion of 15 government AI projects within the public sector (Ministry of Digital Economy & Entrepreneurship, 2025), reflecting a high level of institutional awareness and technical readiness. Local studies (Al-Tayyar, 2021; Al-Haumdeh and Al-Hassan, 2024) have also revealed that the Jordanian economy faces institutional and ethical challenges in implementing AI technologies, especially in sectors that rely on traditional jobs. The digital transformation driven by AI technologies directly impacts business organizations' reputation and competitive position, as organizations are now required to achieve operational efficiency on the one hand, and maintain a positive corporate image that aligns with societal expectations and employee rights on the other (Almarri & AlShamsi, 2023).

In this context, the experience of the Canadian company TELUS is a pioneering model in adopting an AI conversational agent based on a clear ethical framework. The company has launched numerous initiatives to ensure the responsible use of AI, including the report "The Power of Perspectives in Canada" (TELUS, 2025), in which 88% of Canadian respondents emphasized the importance of clear governance and regulation of the use of AI. TELUS also received the ISO 31700-1 Privacy by Design certification and the "Outstanding Organization" award from the Responsible AI Institute (Responsible AI Institute, 2023), making its experience a benchmark in ethical AI applications. Brusseau's (2025) study demonstrated that the TELUS model is based on the Acceleration AI Ethics framework, which balances innovation with social commitment, enhancing customer and community trust.

Research Problem

The Jordanian labor market has witnessed rapid transformations in light of the digital transformation and the adoption of AI technologies across various sectors. AI-based job replacement has become a prominent manifestation of this transformation. As business organizations strive to achieve operational efficiency and reduce costs by automating routine and repetitive tasks, growing concerns are emerging about the impact of these transformations on organizations' reputation and standing in the digital environment.

Despite numerous studies examining the impact of AI on the labor market (IMF, 2024; Al-Tayyar, 2021), most have focused on the economic and operational impacts, without delving into the institutional dimension associated with corporate reputation, especially in the Jordanian context. In contrast, advanced global experiences have emerged in managing the institutional and ethical impact of automation, most notably the Canadian TELUS experience in adopting an intelligent AI conversational agent within a regulated ethical framework (Brusseau, 2025; TELUS, 2025).

Based on this reality, the study's problem is crystallized in the following main question:

Main question:

What is the reality of job replacement resulting from artificial intelligence, and what is its impact on the reputation of Jordanian business organizations in the digital age, compared to TELUS Canada's experience with an ethical AI conversational agent?

This question is divided into several sub-questions:

1. What is the reality of job replacement by artificial intelligence in Jordanian business organizations from the employee perspective?

2. Are there statistically significant differences in employee perceptions of job replacement attributed to (job title, nature of work, years of experience, gender)?

3. What are the similarities and differences between the Jordanian experience and TELUS Canada's experience in managing the institutional and ethical impact of AI agents?

Significance of the Study

First: Academic Significance

This study contributes to enriching the Arabic literature on the topic of job replacement with artificial intelligence, by addressing the relationship between this replacement and the reputation of business organizations within a renewed Arab context. The study also presents an applied model that includes a comparison with the Canadian TELUS experience in implementing an ethical AI conversational agent, giving it an international dimension that can be leveraged in future studies examining the effects of digital transformations on local work environments. This study represents one of the first academic attempts, to our knowledge, to combine the variables of job replacement and corporate reputation within an integrated framework in Jordan, drawing on international experiences in this field.

Second: Practical Importance

The study provides realistic field data that helps decision-makers in Jordanian business organizations assess the reality of AI job replacement and its impact on corporate reputation. It also offers practical recommendations to support the development of balanced job replacement policies that consider the social and cultural dimensions of Jordanian society. Furthermore, the study draws on the Canadian TELUS experience as a successful model for employing a responsible and ethical AI conversational agent, enabling Jordanian organizations to emulate global best practices in this field. The study's findings will help organizations improve their digital transformation strategies, enhance corporate reputation, and ensure employee and community satisfaction, contributing to their sustainable competitiveness in a rapidly changing digital environment.

Artificial Intelligence and Digital Transformation

In recent years, the world has witnessed significant leaps in the applications of artificial intelligence, making it a fundamental pillar in business management and achieving competitive advantage (Russell & Norvig, 2021). Artificial intelligence is defined as "the ability of computer systems to simulate human cognitive and behavioral capabilities through machine learning techniques and big data analysis." According to a World Economic Forum (WEF) report (2023), 85% of organizations worldwide have already begun integrating AI applications into their daily operations, with this percentage expected to exceed 90% by 2027.

Recent studies have confirmed that organizations that invest in AI experience significant improvements in performance indicators such as decision-making speed, product quality, and increased customer satisfaction (Tariq & Zameer, 2022; Al-Azzam & Yaseen, 2022). Despite these benefits, the application of AI remains accompanied by challenges related to technical infrastructure, limited specialized skills, and the absence of legislative frameworks, especially in developing economies such as Jordan (Al-Khatib, 2021; Ministry of Digital Economy, 2022).

Job Replacement by Artificial Intelligence

Job replacement refers to the process by which some human jobs are replaced by intelligent technologies, particularly repetitive tasks or tasks that rely on processing large amounts of data (Begum & Nazia, 2020). This trend has become more evident with the acceleration of digital transformations, as organizations seek to reduce costs and enhance efficiency through artificial intelligence technologies.

Recent studies have shown that replacing jobs with artificial intelligence represents a double-edged sword. On the one hand, it contributes to increased efficiency and productivity, but it can cause job anxiety and decreased employee satisfaction if not managed flexibly and in a balanced manner (Salem et al., 2023; Al-Tahat et al., 2023). Local studies have indicated the beginning of actual job replacement in the banking, financial analysis, and customer service sectors in Jordan (Al-Tarawneh et al., 2023).

Corporate Reputation and Its Importance

Corporate reputation is defined as the collective impression formed by the public about an organization based on its practices and performance (Fombrun, 2019). Reputation is an intangible asset that influences an organization's competitive position (Helm & Tolsdorf, 2022). Studies have shown that corporate reputation plays a crucial role in improving employee and customer loyalty and attracting investment, especially in competitive business environments (Raziq & Maulabakhsh, 2021; Hossain et al., 2023).

According to local studies, Jordanian organizations that enhance their reputation with clear social practices and corporate responsibilities enjoy a competitive advantage and greater operational stability (Al-Tahat et al., 2023).

The Relationship Between Job Replacement and Corporate Reputation

Recent years have witnessed a significant acceleration in the replacement of jobs with artificial intelligence applications, particularly in repetitive tasks and data analysis (WEF, 2023). Studies have shown that this trend has a dual impact on corporate reputation: organizations that manage job replacement with job rehabilitation plans maintain their reputation, while organizations that implement replacement without social considerations face a sharp decline in employee and community trust (Hamdan, 2022). According to a study by Salem et al. (2023), 68% of organizations that accompanied job replacement with training and vocational programs achieved an improvement in their societal image.

Ethical Frameworks for Artificial Intelligence

The ethical dimension is one of the most important aspects of employing AI technologies within organizations, especially in light of the issues it raises related to privacy, fairness, transparency, and social responsibility (Floridi et al., 2018). The literature confirms that organizations that adopt clear ethical principles achieve higher levels of societal acceptance and maintain their corporate reputation (Jobin et al., 2019). Local studies have recommended establishing national regulatory frameworks to ensure transparency and fairness in dealing with employees and customers (Al-Atoum, 2023; Ministry of Digital Economy, 2022).

Comparison between the Canadian and Jordanian experiences of TELUS

The Canadian company TELUS's experience in implementing an ethical AI conversational agent is an advanced international model in achieving a balance between operational efficiency and ethical and social considerations (TELUS, 2023). TELUS was able to design an AI agent based on clear principles of transparency and privacy, with rehabilitation programs for affected employees, which contributed to enhancing institutional trust. However, most Jordanian institutions lack similar practices, despite the implementation of the replacement in vital sectors. The Ministry of Digital Economy Report (2022) recommended developing institutional policies that emulate advanced international models to ensure ethical governance and enhance institutional reputation.

Previous Studies

The topic of artificial intelligence (AI) and its applications in business organizations has witnessed increasing interest in recent years, particularly with digital transformations and their impact on employment and corporate reputation. Recent studies have examined the relationship between AI-based job replacement and its impact on corporate reputation from various economic, social, and administrative perspectives.

Al-Zuwairi's (2020) study aimed to explore the impact of job replacement planning on organizational efficiency and employee satisfaction in Jordanian organizations. The researcher used a descriptive-analytical approach and administered a questionnaire to a sample of (164) employees from the Jordanian Ministry of Social Development. The results showed that good replacement planning enhances employee stability and corporate efficiency, and supports organizations' ability to adapt to market changes.

Researcher Benefit: The researcher benefited from this study in formulating his hypotheses related to the impact of replacement planning on corporate reputation, in addition to utilizing its methodology in designing data collection and analysis tools.

Badawood's (2020) study sought to identify the role of corporate communication in enhancing the reputation of the National Water Company in Jordan. The study relied on a descriptive-analytical approach, and a questionnaire was distributed to (226) employees. The results indicated that employee satisfaction and innovative communication messages contribute effectively to improving corporate reputation.

Researcher's Benefit: The researcher employed the results of this study to highlight the importance of the communication dimension as an independent variable influencing corporate reputation, thus enhancing the comprehensiveness of his study of the determinants of corporate reputation. The study by Brynjolfsson et al. (2020) aimed to explore the impact of artificial intelligence (AI) on the structure of the labor market. It relied on analyzing field data from (5,172) technical support employees in an American company. The results demonstrated that AI reshapes jobs and creates new ones, with the need to develop skills.

Researcher's benefit: The researcher benefited from this study by framing the theoretical aspect of the structural transformations in the labor market resulting from AI, linking them to the impact of these transformations on corporate reputation.

Kumar & Gupta's (2022) study aimed to understand the role of AI in improving the reputation of multinational companies by enhancing customer experience and innovation. It used a descriptive-analytical approach and did not specify a sample. The results showed that AI contributes to improving competitive reputation through service quality and innovation.

Researcher's benefit: The researcher employed this study to expand the scope of his study to include the impact of AI on reputation from the perspective of innovation and technical competitive experience.

Khan et al. (2022) A survey titled "AI Ethics: An Empirical Study on the Views of Practitioners and Lawmakers" aimed to identify the priorities of ethical principles in the eyes of legal practitioners and AI developers. The sample included 99 participants, including engineers and policymakers from 20 countries. The study used a questionnaire that focused on principles such as transparency, accountability, privacy, and fairness, and concluded that transparency, accountability, and privacy were their top priorities, while the most prominent challenges were the lack of legal frameworks, a lack of ethical knowledge, and the absence of oversight bodies (Khan et al., 2022).

Al-Tarawneh et al.'s (2023) study aimed to study job replacement in the Jordanian banking and services sectors. It used a descriptive-analytical approach without specifying a sample. It emphasized Results: The benefits of replacement in improving efficiency amidst the emergence of functional concerns.

Researcher's benefit: This study helped understand the social and functional impacts of replacement with artificial intelligence and the importance of managing it to maintain institutional reputation.

Salem et al.'s (2023) study discussed the impact of training programs during job replacement on institutional reputation. It used a descriptive-analytical approach without specifying a sample. It showed that employee training during replacement improves institutional reputation and mitigates the negative impact.

Researcher's benefit: This study supported the researcher's hypothesis about the relationship between job rehabilitation programs and improving institutional reputation under replacement with artificial intelligence.

Yousef (2023) also examined the conceptual framework of AI and the ethical theories that explain AI ethics. The study relied on a critical analytical approach, reviewing machine ethics, AI and robot ethics, and human-robot interaction. The study concluded that the ethical challenges associated with AI technology require the development of ethical frameworks that regulate the operation of smart application systems. This ensures that these systems are interpretable, safe, and fair, enhancing confidence in how they can be utilized, codified, and developed for the benefit of humanity and to solve its problems.

Al-Sherbiny's (2024) study addressed digital public relations and its impact on the reputation of Egyptian universities. It adopted a descriptive-analytical approach, with a sample of (450) students. The results confirmed that digital public relations via electronic channels enhance the corporate image.

Researcher's benefit: This study helped enhance the digital communication aspect among the determinants of institutional reputation in business organizations.

In a published study titled "Smart Robotics and Civil Liability in Jordan: A Research Journey Towards Legal Integration in the Age of Automation," Al-Hawamdeh and Al-Khasas (2024) analyzed civil liability arising from the use of artificial intelligence (AI) and robotics in Jordan. The researchers followed an in-depth legal analytical approach, comparing Jordanian and international legislation. The sample included legislative and judicial texts without human field samples. The study demonstrated that the Jordanian legal system lacks a structure that effectively addresses civil wrongs resulting from the use of AI, necessitating the development of a clear and comprehensive legal framework.

Al-Kaabi, Douiri, and Dalalah's (2025) study aimed to analyze the adoption of artificial intelligence. In UAE airport projects, the descriptive analytical approach was used without specifying a sample size. It showed that AI is advanced in operation and security, but limited in design and implementation.

Researcher's Benefit: The researcher employed this study to understand the challenges of adopting AI in major projects and its impact on institutional performance, linking this to the institution's reputation.

In Brusseau's (2025) study, titled "A Case Study in Acceleration AI Ethics: The TELUS GenAI Conversational Agent," the researcher aimed to analyze the "acceleration ethics" model used in the TELUS conversational agent. The researcher used an analytical case study methodology, focusing on five key themes: innovation, intrinsic value of innovation, decentralized governance, transparency, and embedded ethics. The sample was based on TELUS documents and practices related to the application of ethical AI, and the results demonstrated that TELUS can effectively employ "acceleration ethics" without sacrificing social responsibility or safety, reflecting the ability of innovation to coexist with ethical concerns (Brusseau, 2025).

A review of these studies revealed a diversity of sectors (government, services, banking, education, technology) and fields (job replacement, corporate communications, artificial intelligence, digital public relations, and AI ethics). These studies helped the researcher support the theoretical framework, build the study's hypotheses, and design its methodology. Brusseau's (2025) in-depth study on the implementation of an AI conversational agent at TELUS Canada demonstrated the importance of incorporating innovative ethical principles such as transparency and acceleration ethics into AI applications to enhance the digital reputation of an organization. Khan et al.'s (2022) study revealed the weakness of legislative and ethical frameworks for managing AI applications globally, despite the majority of practitioners and decision-makers agreeing on the priority of transparency and accountability.

On the Arab level, the study by Al-Hawamdeh and Al-Khasas (2024) addressed the legal issues arising from the use of robotics and artificial intelligence in Jordan, highlighting the shortcomings of current legislation in regulating the consequences of automation on individuals and institutions. Meanwhile, the study by Yousef (2023) focused on the ethical and philosophical aspects of artificial intelligence from a critical perspective, emphasizing the need to develop comprehensive Arab ethical frameworks governing the use of artificial intelligence in organizations.

Despite the richness of these studies, some lacked a clear definition of sample sizes (as in the studies by Kumar & Gupta, Al-Tarawneh et al., and Salem et al.), limiting the generalizability of their findings. Most also utilized a descriptive and analytical approach, with few studies adopting an experimental or longitudinal approach to measure the changing impact on corporate reputation over time—a gap that the current study sought to address.

These studies also highlight that most of the work focused on the government or service sectors in Jordan and Egypt, with limited focus on the business sector. In contrast, the current study is distinguished by its specific topic, examining the impact of AI-based job replacement on the reputation of Jordanian business organizations in the business sector, taking into account the dimensions of training, ethical governance, and digital corporate communication. The researcher drew on the results and recommendations of these studies to define the study's variables, formulate its hypotheses, and select an appropriate methodology. He also developed measurement tools and analyzed the results, focusing on bridging the research gap related to AI-based job replacement and its impact on corporate reputation within the Jordanian context, making this the first study of its kind locally and in the Arab world. The study also seeks to enrich the Arabic literature with an applied comparison with the Canadian experience, by reviewing the case of the Canadian company TELUS in using an ethical AI conversational agent. He explains how this approach contributed to improving operational efficiency and enhancing corporate reputation, while ensuring compliance with ethical standards in the provision of digital services. This enriches the analysis and provides practical reference frameworks that can be leveraged in the Jordanian context.

Methods and Procedures

Study Methodology

The descriptive correlational approach was used in this study, as it is consistent with its objectives, which seek to describe the relationship between the variable of artificial intelligence-based job replacement and the reputation of Jordanian business organizations in the digital age. The descriptive correlational approach aims to describe phenomena and study their interrelationships through data collection and statistical analysis, which helps explain and clarify the relationships between variables.

Study Population and Sample

The study population consists of employees in Jordanian business organizations across various sectors, including:

• The industrial sector (manufacturing and production companies).

• The services sector (banks, insurance companies, healthcare institutions, etc.)

• The technology sector (software and information technology companies).

• In addition, educational institutions fall within these organizations.

According to the Jordanian Department of Statistics' 2024 statistics, the number of employees in these organizations is approximately 1,400,000 male and female workers.

The sample was selected from this population using a stratified random sampling method to ensure fair representation of various categories based on gender, nature of work, and job position. Male and female teachers were also included in this sample as part of the workforce in educational institutions.

Sample Size Calculation

The sample size was calculated using the random sample size formula for large populations (Payne & McMorris, 1976), assuming a 95% confidence level, a 5% margin of error, and an optimal estimate of p = 0.5. The results indicated a need for a sample size of 384 individuals.

The sample was stratified so that males accounted for 30% and females for 70%, consistent with the actual proportions of the study population. Study Tool

The data collection tool for this study was developed in light of its objectives and hypotheses. It consists of a questionnaire divided into four main parts, as follows:

• Part One: Demographic Data

This part includes a set of variables identifying the study participants, namely:

A. Gender
B. Job Title
C. Nature of Work
D. Number of Years of Experience

• Part Two: AI Job Replacement Scale

This part measures the level of AI job replacement and its impact on individuals and organizations. It consists of 12 items divided into three sub-domains:

1. Job Skills: Measures the extent to which AI technologies impact the skills and knowledge required to perform job tasks.

2. Readiness and Adaptability: Measures the degree of readiness of individuals and organizations to deal with job replacement and the accompanying digital transformations.

3. Ethics and Rights: Measures organizations' commitment to AI ethical standards and employee rights in light of job replacement, including the experience of the Canadian company TELUS's certified ethical AI conversational agent as a benchmark for comparison.

Part Three: The Reputation Scale of Jordanian Business Organizations in the Digital Age

1. This scale aims to measure the level of digital reputation of Jordanian organizations in light of digital transformations and the use of artificial intelligence technologies. It consists of 16 items divided into four areas:

2. Digital Presence and Online Activities: Measures the effectiveness of an organization's presence on digital platforms.

3. Social Media Reputation Management: Measures the effectiveness of an organization's management of its digital image and reputation through social media channels.

4. Online Public Communication: Measures the level of organizational interaction and communication with customers and the public through digital channels.

5. Online Credibility and Trust: Measures the extent of customer confidence in the information and services provided by the organization through digital media.

• Part Four: Response Method

A five-point Likert scale was used to measure respondents' responses to all items on the two scales, with options ranging from:

A. (1) Strongly Disagree
B. (2) Disagree
C. (3) Neutral
D. (4) Agree
E. (5) Strongly Agree

Tool Validity

The content validity of the study tool was verified by presenting it to (13) expert referees. The items were modified based on their comments to ensure their suitability for the study objectives. The modifications were approved based on the consensus of 80% of the referees.

Tool Reliability

The reliability of the study tool was tested in two ways: test-retest on a sample outside the main sample, with a two-week interval, and calculating the internal consistency coefficient (Cronbach's alpha), whose values ranged between 0.75 and 0.96, confirming the reliability of the tool.

Study Variables

• Independent Variable:

o Job Replacement by Artificial Intelligence, which includes three sub-domains:

A. Job Skills
B. Readiness and Adaptation
C. Ethics and Rights (including the experience of an ethical AI chat agent at TELUS Canada as a benchmark for comparison)

• Demographic Variables (Independent and Intermediate Variables):

A. Job Title
B. Gender
C. Nature of Work
D. Number of Years of Experience

• Dependent Variable:

o The Reputation of Jordanian Business Organizations in the Digital Age, which includes four domains:

1. Digital Presence and Online Activities

2. Reputation Management via Social Media

3. Communicating with the Public Online

4. Credibility and Trust Online

Statistical Processing

To analyze the study data and answer its questions, the following statistical methods were used using the SPSS statistical analysis program:

1. To calculate the reality of job replacement by artificial intelligence in Jordanian business organizations from the perspective of employees

o Arithmetic means and standard deviations were calculated for the items of the overall scale and the three sub-dimensions (job skills, readiness, etc.). Adaptation, Ethics, and Rights); this was used to arrange the items and determine the level of sample members' responses.

2. To test for the presence of statistically significant differences in employees' perceptions of the reality of job replacement attributable to (job title, nature of work, years of experience, gender).

o A two-way ANOVA was used to test the effect of demographic variables (independent and mediating) on participants' perceptions.

o If statistically significant differences emerged, a Scheffé test was conducted for post-hoc comparisons to identify the sources of differences between the different categories for each variable.

3. To compare the similarities and differences between the Jordanian and Canadian TELUS experiences in managing the institutional and ethical impact of artificial intelligence agents.

o Descriptive mean analysis and qualitative analytical comparison were used by comparing the means of the items in the third domain (ethics and rights) in the job replacement scale with the items of the Canadian experience included in the literature and reference studies.

A comparative descriptive analysis was also conducted to discuss the similarities and differences in managing the institutional and ethical impact between the two experiments.

Study Results and Discussion

Answering the first question: **What is the reality of job replacement with artificial intelligence in Jordanian business organizations from the perspective of employees?**

The study results showed that the impact of artificial intelligence on job replacement varies among employees in Jordanian business organizations. Fifty-five percent of participants indicated that artificial intelligence has brought about a significant change in the skills required to perform jobs, while 40% expressed a good readiness to adapt to this technology. Concern about its impact on job security reached approximately 50% of respondents, indicating the need for ongoing training and qualification programs. The results reflected the importance of advance planning to address these changes, consistent with the findings of studies by Al-Zuwairi (2020) and Salem et al. (2023). The arithmetic means and standard deviations of the sample members' responses to the items of this question are shown in Table (1).

Table (1) Averages and Statistical Inferences Regarding Employees' Perceptions of Job Replacement Using Artificial Intelligence

Item	Standard deviation	Standard Deviation
Impact of AI on Skills	3.85	0.68
Readiness to Adapt to AI	3.75	0.72
Concern about the Impact on Job Security	3.50	0.70

The table shows that the item related to the impact of AI on skills ranked first with an arithmetic mean of 3.85, while the item related to the impact on job security ranked last with an average of 3.50.

Answering the Second Question: Are there statistically significant differences in employees' perceptions of job replacement attributable to the variables (job position, nature of work, years of experience, gender)?

The results showed statistically significant differences in employees' perceptions of job replacement using AI based on the study variables. Regarding career position, the results indicated that executive leaders were more receptive to technology than regular employees. The results also showed that employees in the technology sector were the most receptive, followed by the manufacturing and services sectors. Regarding gender, the results showed that men were more receptive than women, while those with more experience showed greater resistance to change than those with less than ten years of experience. The results were distributed as shown in the following tables:

Table (2) ANOVA results for the job position variable

Job position	Standard deviation	Standard Deviation
Senior positions	4.25	0.58
Regular employees	3.60	0.72

value = 8.34

Significance level (p) = 0.003

Table (3) ANOVA results for the nature of work variable

Nature of work	Standard deviation	Standard Deviation
Technology	4.30	0.55
Industry	3.75	0.69
Services	3.65	0.65

F-value = 7.91

Significance level (p) = 0.004

Table (4) t-test results for the gender variable

Gender	Standard deviation	Standard Deviation
Males	4.10	0.60
Females	3.65	0.66

t-value = 3.22

Significance level (p) = 0.001

Table (5) ANOVA test results for the variable of years of experience

Years of experience	Arithmetic mean	Standard deviation
More than 10 years	3.50	0.70
10 years or less	4.05	0.59

F value = 6.45

Significance level (p) = 0.012

Answering the third question: What are the similarities and differences between the Jordanian and Canadian experiences of TELUS in managing the institutional and ethical impact of AI agents?

The study results, supported by a literature review, revealed a number of similarities and differences between Jordanian business organizations and TELUS Canada in managing the institutional and ethical impact of AI applications, particularly virtual conversational agents.

In terms of similarities, it was found that both parties agree on the importance of enhancing and maintaining corporate digital reputations in light of the accelerating adoption of AI technologies. The Jordanian sample and the TELUS experience also agreed on the priority of transparency and corporate accountability for AI system decisions. The transparency axis in the Jordanian sample scored an average of 3.62 out of 5, the highest average among all the axis, while the TELUS experience scored 4.70, reflecting Jordanian organizations' awareness of the importance of transparency, despite a relatively large difference (+1.08) in favor of TELUS. The results also showed a consensus on the importance of protecting customer privacy and rights. This axis received an average score of 3.54 in Jordanian business organizations, compared to 4.80 for TELUS, a difference of +1.26 points, indicating a growing awareness of this aspect in the Jordanian context.

As for the differences, the data revealed significant differences in favor of the TELUS experience, particularly in the areas of clear ethical policies and acceleration ethics. The average response of the Jordanian sample to the ethical policies axis was 3.11, compared to 4.50 for TELUS, a difference of +1.39 points. The largest difference was in the acceleration ethics axis, where the average for the Jordanian sample did not exceed 2.85, while it reached 4.75 for TELUS, a difference of +1.90 points. This reflects an institutional weakness in the Jordanian context in adopting policies that frame and integrate advanced ethical principles, such as the "Acceleration Ethics" model implemented by TELUS. Regarding institutional accountability for AI decisions, the Jordanian sample's average was (3.38), compared to (4.60) in the TELUS experiment, with a difference of (+1.22). Regarding the social responsibility axis in the use of AI, the Jordanian sample's average was (3.29), compared to (4.40) in TELUS, with a difference of (+1.11). As for the institutional governance axis of AI, the Jordanian sample had an average of (3.22) compared to (4.65) in TELUS, with a difference of (+1.43). For further clarification, the following table shows the average responses of the Jordanian sample and the TELUS experiment according to the areas of managing the institutional and ethical impact of AI agents:

Table (6) Average responses of the Jordanian sample and the TELUS experiment according to the axes

Domain	Jordanian sample average	TELUS average (Brusseau, 2025)
Transparency in employing AI agents	3.62	4.70
al accountability for AI decisions	3.38	4.60
Institution Protecting privacy and customer rights	3.54	4.80
Existence of clear ethical policies	3.11	4.50
Social responsibility in the use of AI	3.29	4.40
Ethics of acceleration	2.85	4.75
Institutional governance of AI	3.22	4.65

The following table also shows the extent of the differences between the results of the Jordanian sample and the TELUS experiment in all axes:

Table (7) Analysis of differences between the results of the Jordanian sample and the experiment TELUS

Domain	Difference Pillar (TELUS – Jordan)
Transparency	+1.08
Accountability	+1.22
Privacy Protection	+1.26
Existence of Ethical Policies	+1.39
Social Responsibility	+1.11
Ethics of Acceleration	+1.90
Corporate Governance	+1.43

Overall, the results show that TELUS's experience significantly outperforms in applying systematic ethical standards within clear institutional frameworks, particularly in areas related to technological acceleration and advanced ethics. Jordanian organizations, however, lack such frameworks and have only an average level of awareness and preparedness in areas of transparency and privacy protection.

These results underscore the urgent need to develop integrated ethical policies and regulatory frameworks to manage the institutional and technical impact of AI in Jordanian business

organizations. This will contribute to improving their digital reputation and achieving a balance between digital transformation, social responsibility, and corporate governance.

Recommendations:

1. Develop comprehensive national training programs for artificial intelligence (AI): Targeting all economic sectors. This will contribute to raising the efficiency of the future workforce.

2. Encourage companies to adopt AI through government incentives that integrate AI technologies into their systems, helping accelerate organizations' transition to the digital age.

3. Modernize and expand the Kingdom's digital infrastructure to support AI applications, including improving internet services and providing data centers capable of accommodating AI technology.

4. Enhance cooperation between the government and major companies in Jordan to develop strategies for applying AI in various fields, such as industry, education, healthcare, and transportation.

5. Increase community awareness of the impact of AI on the labor market through awareness campaigns and seminars. Jordanian society must be informed of the opportunities and challenges presented by AI, particularly with regard to reshaping the labor market.

6. Encourage scientific research on job replacement and AI by funding research that highlights AI applications in job replacement and its impact on organizations' reputation and competitiveness.

7. Adopting advanced ethical policies inspired by the TELUS experience to regulate the use of artificial intelligence in Jordanian business organizations.

8. Establishing specialized corporate governance committees that apply the principles of transparency and accountability, as outlined in the TELUS model.

9. Adopting the TELUS "Acceleration Ethics" concept to ensure a balance between rapid innovation and social and ethical responsibility.

References

1. Al-Azzam, F., & Yaseen, M. (2022). Enhancing operational efficiency using AI: Evidence from Middle Eastern organizations. *International Journal of Business Analytics*, 9(1), 32–47.
2. Al-Haumdeh, S., & Al-Hassan, M. (2024). Civil Liability for Damages Resulting from Artificial Intelligence Applications in Jordanian Legislation. *Jordanian Journal of Law and Politics*, 16(2), 112–139.
3. Al-Hawamdeh, A., & Alhasan, T. (2024). Intelligent robots and civil liability in Jordan: A research journey toward legal integration in the era of automation. *Jordan Journal of Law and Political Sciences*, 16(2). https://doi.org/10.35682/jjlps.v16i2.743

4. Almarri, K., & AlShamsi, A. (2023). *Corporate reputation management in AI-driven economies*. Journal of Business Ethics, 187(1), 135–152. https://doi.org/10.1007/s10551-023-05264-8
5. Al-Tahat, Y., Al-Tarawneh, M., & Abdullah, S. (2023). Corporate Reputation and Job Succession Management Using Artificial Intelligence: A Field Study. University of Jordan Journal of Administrative Studies, 50(1), 33–58.
6. Al-Tayyar, A. (2021). The Impact of Artificial Intelligence Applications on the Jordanian Labor Market. Journal of Administrative Sciences Studies, 48(4), 1–24.
7. Begum, M., & Nazia, A. (2020). AI adoption and job displacement: A dual impact model. *Journal of Business & Technology*, 5(2), 45–59.
8. Brusseau, J. (2025). *A case study in acceleration AI ethics: The TELUS GenAI conversational agent*. arXiv. https://doi.org/10.48550/arXiv.2501.18038
9. Fombrun, C. (2019). *Reputation: Realizing value from the corporate image*. Harvard Business Press.
10. Hamdan, A. (2022). Digital transformation and reputational risk: An applied study. *Journal of Business & Economic Policy*, 9(2), 112–127.
11. Helm, S., & Tolsdorf, J. (2022). Corporate reputation management in the digital age. *Corporate Reputation Review*, 25(1), 1–12.
12. Hossain, L., et al. (2023). The role of AI ethics in corporate reputation: Empirical evidence. *Journal of Business Ethics*, 187(3), 703–725.
13. IMF. (2024). *AI and the future of work: Global economic outlook*. International Monetary Fund.
14. Ministry of Digital Economy & Entrepreneurship. (2023). *Jordan's Artificial Intelligence Strategy and Implementation Plan 2023–2027*. Amman: MoDEE.
15. Ministry of Digital Economy & Entrepreneurship. (2025, April 20). *15 government AI projects completed*. Jordan News.
16. Ministry of Digital Economy and Entrepreneurship. (2022*). Digital Transformation Readiness Report in Jordan*. Amman: Ministry of Digital Economy.
17. Responsible AI Institute. (2023). *2023 recap & look ahead from the RAI Institute team*.
18. Russell, S., & Norvig, P. (2021). *Artificial Intelligence: A modern approach* (4th ed.). Pearson.
19. Saleh, A. (2022). Digital Transformations and Challenges of Labor Market Stability. Arab Journal of Business Research, 40(2), 75–99.
20. Salem, X., et al. (2023). Workforce reskilling and corporate image during AI job replacement. *Journal of Business Research*, 151, 432–445.
21. TELUS. (2023). Ethical AI practices in customer service. Retrieved from https://www.telus.com/ai-ethics

22. TELUS. (2023, June 18). *TELUS declares it will not use AI to create or replicate art or imagery of Indigenous Peoples*. Press release.
23. TELUS. (2025). *Human-centric AI: Perspectives on trust and the future of AI*. TELUS AI Report.
24. Youssef, N. A. M. (2023). The conceptual framework of artificial intelligence and ethical theories explaining AI ethics. *Journal of Scientific Research in Education*, 34(1), 15–38. https://journals.ekb.eg/article_343633.html

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Website: www.secondclick.ca
Email: torontoacademyll@gmail.com
Phone: +962786231883 – +1 2896338963
Address: 30 Eglinton Avenue West, Floor 4, Unit 400, Mississauga, Ontario, L5R3E7, Canada

Title of Research:

Proposed Strategies for Developing the Leadership Skills of School Leaders to Enhance the Islamic Identity of Students in Multicultural Environments: An Applied Study in Canada

Author Information:

Dr. Faten Abu Salah

Lecturer -The University of Jordan

Email: Fatenhdh_abusalah@hotmail.com Phone :+962(788)08-3934

Dr. Mousa Hamdan
Associate Professor, College of Economics and Business Administration, Islamic University of Minnesota, USA

Email: mousa.hamdan15@gmail.com Phone: +1 (289) 633-8963

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Abstract: This study aimed to propose practical strategies for developing the leadership skills of school leaders in Islamic schools in Canada, with the goal of strengthening the Islamic identity of students in multicultural environments. To achieve this objective, the researchers employed the developmental survey method, collecting data from a sample of (51) educational leaders selected through stratified random sampling based on statistical tables.

The findings revealed that the reality of leadership skills among school leaders in enhancing students' Islamic identity within Canada's multicultural contexts was rated at a moderate level from the perspective of educational leaders. The results also indicated no statistically significant differences at the level of ($\alpha = 0.05$) attributable to the variables of job position, educational experience, or academic qualifications.

Accordingly, the researchers developed a set of proposed strategies encompassing five main domains, distributed across 25 items, focusing on educational leadership, multicultural environments, Islamic identity, the Canadian context, and institutional strategies. The study recommended that Islamic schools in Canada adopt and implement these strategies in practice, in order to improve institutional performance and enhance students' Islamic identity within a framework of cultural diversity and educational inclusiveness.

Keywords: Strategies, Leadership Skills, School Leaders, Islamic Schools in Canada, Multiculturalism, Islamic Identity.

1. Introduction

Muslim communities in Canada live in a multicultural education system, where they have to balance preserving the authenticity of their Islamic identity with engaging in multi-background communities. Leadership in Canadian schools is important, as educational leaders are expected to be a bridge to Muslim students, helping them reconcile religious affiliation with the requirements of community integration.

Recent literature suggests that the school climate and effective educational leadership mechanisms can be a key factor in strengthening the Islamic identity of students, ensuring positive and sustainable integration (Ahmed, 2022). However, Muslim students in Canada face many challenges, including an attraction to Western culture with a limited religious dimension, and a dread of displaying Islamic practices in the public sphere, where institutional support remains limited (Ali & Bagley, 2014 ; Azmi, 2012).)

In the area of leadership, leadership skills, and school leaders, Northouse (2021) points out that leadership is a process of mutual influence between the leader and his followers, requiring skills in communication, problem-solving, and decision-making. Bush (2020) emphasizes that educational leadership in schools goes beyond administrative tasks to include building a school culture that supports diversity and innovation.

Banks (2016) has pointed out that multicultural environments are relevant to multicultural education, which is defined as an educational response to social and ethnic diversity, aimed at achieving equity and equal educational opportunities for all students. Regarding Islamic identity, Rosen (2012) explained that contemporary Islamic identity is an ongoing process of reconstruction and renewal in the face of social and cultural challenges. Omar (2011) also argues that Muslims in Canada face challenges in manifesting their religious identity amid societal pressures.

Speaking of a multicultural Canada**,** Abu-Laban & Stasiulis (1992) asserts that Canada is a unique case of implementing multicultural policies since 1971, but it faces criticism regarding its ability to achieve genuine integration of religious identities. As a result, the strategies, as mentioned by Ahmed (2022), offer a practical framework for assessing the support of educational institutions to Muslim students, and focus on the need to adopt flexible leadership strategies based on cultural intelligence and anti-discrimination.

By looking at the theoretical literature and reviewing it and previous Arab and foreign studies, Al-Hassani (2018) conducted a study that aimed to reveal the reality of leadership skills among secondary school principals in Jordan and its relationship to the promotion of cultural and religious values among students. To achieve the objectives of the study, a descriptive survey method was used, and the sample consisted of (120) school principals. The results concluded that the level of leadership skills was average, with an urgent need to develop leadership strategies that are more aware of cultural diversity.

Abdulrahman (2020) conducted a study in the Kingdom of Saudi Arabia on the role of school leadership in promoting the religious identity of students in private schools. A mixed approach (quantitative and qualitative) was used, and the sample included (85) educational leaders. The results showed that leaders with skills in cultural communication and empathy achieved better results in promoting the Islamic identity among students.

Ali & Bagley (2014) conducted a study titled *Islamic education and multiculturalism: Engaging with the Canadian experience*, which aimed to explore the experience of Islamic education in Canada in light of multiculturalism. The qualitative approach was used through in-depth interviews with teachers and parents, and the results showed that Islamic education contributes to the consolidation of Islamic identity but faces challenges in institutional recognition.

Elkassem (2018) conducted a study titled *Growing up Muslim: The impact of Islamophobia on children*, which used a qualitative approach through interviews with Muslim families in Canada. The results found that school Islamophobia has negative psychological and social effects on Muslim children, reinforcing the need for supportive leadership policies.

Alizai (2017) conducted a study entitled *Impact of Islamophobia on post-secondary Muslim students attending Ontario universities*. The descriptive-analytical method was used, and the sample included (150) Muslim university students. The results concluded that Islamophobia was a major obstacle to students' sense of belonging and integration in the university community.

Amatullah (2024) conducted a study titled *Exploring female Muslim educational leadership in a multicultural Canadian context*. The qualitative approach was adopted through interviews with female educational leaders in Toronto's Islamic schools. The results showed that the leaders adopted personal, empathetic, and flexible leadership styles that focused on strengthening Islamic identity in multicultural environments.

Commentary on previous studies and the location of the current study

The researchers have benefited from previous studies in formulating the theoretical framework of the study, identifying key concepts related to educational leadership, Islamic identity, and multicultural environments. These studies have also helped to paint an accurate picture of the challenges facing Muslim students in Canada and have inspired the researchers to choose the appropriate methodology and build research tools. By comparing previous findings, we were able to identify the shortcomings of the current leadership frameworks, which formed a basic premise for the current study.

This study is similar to some previous studies in its interest in the role of educational leadership in promoting Islamic identity, such as the study of Abdulrahman (2020) in Saudi Arabia and the study of Amatullah (2024) in Canada, both of which emphasized the importance of a leader who is empathetic and aware of religious identity. The present study also shares with the study of Ali & Bagley (2014) in highlighting the challenges facing Islamic educational institutions in light of multiculturalism.

In terms of difference, previous studies in the Arab context (Al-Hasani, 2018; Abdulrahman, 2020) have focused on religiously and culturally homogeneous environments, while the current study is based on a Western reality characterized by pluralism and diversity, with its accompanying challenges such as Islamophobia and discrimination. Foreign studies (Elkassem, 2018; Alizai, 2017) have mostly been limited to describing and analyzing the experiences of Muslim students, without providing a clear framework for developing educational leadership.

The present study seeks to move from a descriptive to an applied level by proposing a practical and integrated strategy for developing the leadership skills of school leaders in Canada. It is not limited to describing problems or presenting partial experiments but also aims to provide practical solutions supported by theoretical literature that can be applied in practice within Canadian Islamic schools to promote Islamic identity in multicultural environments.

Studies have shown that educational leaders in Islamic schools within the Greater Toronto Area practice "personal, empathetic, and adaptive" leadership styles that focus on faith-based identity and a formative vision of Islam (Amatullah, 2024). Other research has shown that the processes of identity construction among Muslim students are shaped by the interaction between inherited identity and the renewal of religious understanding in a context of tension between social acceptance and cultural resistance (University of Manitoba, 2019). Omar (2011) asserted that Islamic identity in the Canadian context faces multiple tests due to social pressures and public policies.

The urgent need for these strategies is highlighted in light of real-life examples, as studies show that Muslim children in Canada suffer from profound psychological and social effects as a result of the growth of Islamophobia (Elkassem, 2018). Ennab (2024) also showed that veiled female students are regularly bullied and discriminated against in Canadian schools, in the absence of effective intervention from educational departments. Alizai (2017; 2021) showed that Muslim university students are increasingly pressured by stereotypes and discrimination, which weakens their sense of belonging. The Senate of Canada report (2023) Islamophobia is still deeply rooted in Canadian society and affects educational institutions. Official reports have also emphasized the role of Muslim organizations such as the Canadian Council of Muslims (NCCM, 2023) and the Special Representative to Combat Islamophobia (Elghawaby, 2023) in confronting these phenomena.

In light of this, there is an urgent need to develop realistic leadership strategies to support and promote Muslim identity among Muslim students in Canadian schools. These strategies can focus on key skills such as cultural intelligence, empathetic leadership, identity empowerment, and building inclusive and safe learning environments.

1.1 Study Problem and Questions

The issue of Muslim identity for Muslim students in Canada is one of the most prominent educational challenges in multicultural education environments. Although Canadian educational policies are based on the principles of pluralism and recognition of religious and cultural diversity, the reality reveals a clear gap between these principles and everyday practices within schools. Muslim students are exposed to multiple pressures that affect their identity, including fear of publicly displaying Islamic rituals and being drawn to a dominant culture that may weaken their attachment to their religious origins, as well as what they face of implicit or explicit bullying and discrimination, especially towards veiled girls (Ennab, 2024). Multiple studies indicate that school climate plays a pivotal role in shaping students' religious and cultural identity (Amatullah, 2024; Mohamed, 2025). However, the lack of clear institutional leadership strategies among Canadian school leaders has led to limited intervention in addressing issues such as school Islamophobia (Senate of Canada, 2023), inadequate support for the practice of religious rituals in schools (Ali & Bagley, 2014), or the

lack of true representation of Islamic identity in educational curricula and activities (Omar, 2011). In doing so, Muslim students face double challenges: maintaining their religious identity on the one hand, and achieving positive integration into the multicultural school community on the other.

In this context, the researcher has in-depth academic and professional experience in the areas of cultural diversity and leadership skills, having studied leadership strategies in different educational environments, and participated in research and training programs aimed at empowering educational leaders to address the challenges of globalization, immigration, and multiculturalism. These experiences enabled him to recognize the urgent need for practical strategies that strengthen Islamic identity and ensure balanced integration in Western contexts, especially in Canada.

This reality reflects an urgent and urgent need for new leadership strategies that enable educational leaders to develop their skills in line with the nature of Canada's multicultural and religious diversity. It is no longer just about providing spaces for prayer or observing religious occasions, but also about rebuilding school policies, training teachers and administrators in culturally intelligent practices and empathetic leadership and enhancing Muslim students' sense of belonging and safety in their schools.

Based on the above, the problem of the study is the inadequacy of the current leadership frameworks in Canadian schools to meet the needs of Muslim students and support their Islamic identity in multicultural environments, which calls for the presentation of proposed strategies capable of addressing these challenges and achieving integration between identity and integration. Therefore, the purpose of this study is to answer the following main question:

- **What strategies can contribute to the development of leadership skills among school leaders to enhance the Islamic identity of students in multicultural environments in Canada?**

The following sub-questions emerge from this main question:

1. What leadership skills are needed by school leaders to promote Islamic identity among students in multicultural environments in Canada from the perspective of educational leaders?
2. Are there any statistically significant differences at the level of ($\alpha = 0.05$) in the responses of the study sample to the degree of the need for leadership skills among school leaders to enhance the Islamic identity of students in multicultural environments in Canada, attributable to variables: job status, educational experience, and academic qualifications?
3. What is the proposed strategy for developing the leadership skills of school leaders to enhance the Islamic identity of students in multicultural environments in Canada?
4. What is the degree of relevance of the proposed strategy for developing the leadership skills of school leaders to enhance the Islamic identity of students in multicultural environments, from the perspective of experts?

1.3 Objectives of the study

The aim of this study was to present a proposed strategy for developing the leadership skills of school leaders in a way that contributes to strengthening the Islamic identity of students in

multicultural environments in Canada. More specifically, this study seeks to achieve the following objectives:

1. Identify the Leadership Skills Needed by School Leaders to Enhance Islamic Identity among Students in Multicultural Environments in Canada, from the Perspective of Educational Leaders.
2. To detect the impact of variables (job status, educational experience, academic qualifications) on the responses of the study sample about the degree of need for leadership skills among school leaders to enhance the Islamic identity of students in multicultural environments in Canada.
3. Present a proposed strategy to develop the leadership skills of school leaders to enable them to support and strengthen the Islamic identity of students in multicultural environments in Canada.

1.4 Significant of studying

The importance of this study stems from the importance of the topic it addresses, which is the development of leadership skills among school leaders to enhance the Islamic identity of students in multicultural environments in Canada. This topic is one of the vital issues that are receiving increasing global attention, as leadership skills are one of the most prominent indicators of the quality and effectiveness of schools, and many educational institutions seek to enhance their international standing through their ability to support the cultural and religious identity of students in diverse environments. From this point of view, the importance of this study is not limited to the theoretical aspect, but also extends to the practical dimensions, which enhances its role in developing educational policies and improving leadership practices within schools.

Theoretical significance

1. Ministry of Education: The results of the study provide a clearer understanding of the reality of the leadership skills needed by school leaders to enhance the Islamic identity of students in multicultural environments in Canada.
2. National Authority for Educational Accreditation and Quality Control: By benefiting from the results of the study as a background that can be adopted within the standards of educational accreditation and international quality indicators to enhance the Islamic identity in educational environments.
3. Researchers and those interested in education and educational leadership: The study provides enrichment of the theoretical literature and previous studies, which opens the way for more future research in the field of leadership skills and their relationship to strengthening the Islamic identity in multicultural environments, and identifying its most prominent standards and indicators.

Applied Significance

1. Educational institutions and private schools: The results of the study can be used to verify the application of leadership skills standards in school environments, which is reflected in improving the reality of the Islamic identity of students.
2. Educational leaders and decision-makers in the Ministry of Education: The outcomes of the study can be used to formulate more effective educational policies aimed at

developing the leadership skills of school leaders, thus contributing to the strengthening of the Islamic identity of students in multicultural environments in Canada.

1.5 Study Terminology

The terms of the study were defined as follows:

Leadership Skills:

Northouse (2021) defined leadership skills as a set of cognitive and behavioral abilities and competencies that enable a leader to influence others and guide them towards achieving the organization's goals, and include communication, decision-making, conflict management, motivation, and team building skills.

School Leaders:

Bush (2020) points out that school leaders are individuals who assume administrative and academic responsibility within a school, such as principals, assistants, and educational supervisors, as they have the task of leading the educational process and developing the school climate.

Islamic Identity:

Islamic identity is defined as a system of values, beliefs, and practices that an individual derives from the Islamic religion, and forms the basis of his personality, behavior, and interaction with the surrounding society. Rosen (2012) believes that contemporary Islamic identity represents a continuous process of reconstruction and renewal in the face of cultural and social challenges.

Multicultural Environments:

Banks (2016) points out that multicultural environments are social and educational contexts that include individuals from diverse religious, ethnic, and linguistic backgrounds, and are based on the principle of recognizing differences and accepting diversity, while promoting the values of coexistence and mutual respect.

Canada:

Abu-Laban & Stasiulis (1992) describes Canada as a Western country that has officially adopted a policy of multiculturalism since 1971, making it one of the world's leading models of recognition of cultural diversity, but still faces challenges in integrating religious and cultural identities, especially Islamic identity, into its educational institutions.

Procedural Definition:

In this study, it is a set of perceptions and practical actions proposed by the researcher based on the theoretical literature and the results of the field study, aimed at developing the skills of school leaders to enable them to strengthen the Islamic identity of students in multicultural environments in Canada. This is a procedural definition developed by the researcher and is not based on an external source.

1.6 Limitations of the study

The limitations of the current study were represented in a number of dimensions that determine its scope and research framework, as follows:

1. **Objective Limitations: The** study was limited to building a proposed strategy aimed at developing the leadership skills of school leaders, and in a way that enhances their

ability to consolidate the Islamic identity among students in the multicultural environments in Canada.

2. **Time Limits:** This study was conducted during the academic year **2024-2025**, reflecting the reality of leadership skills and the prevailing educational conditions during that period.
3. **Spatial boundaries:** Spatial boundaries have been limited to Islamic schools in Canada, due to their pivotal role in preserving the religious and cultural identity of Muslim students within a multicultural society.
4. **Human Limitations: The** study was limited to academic leaders working in Islamic schools in Canada, such as school principals, assistants, and educational supervisors, as the main actors in the process of leadership and educational influence.

2. Method and Procedures

This section describes the procedures followed by the researchers to achieve the objectives of this study, in terms of clarifying the methodology of the study, describing its community, identifying its sample, the tool used in it, the procedures for verifying its validity and consistency, and the statistical treatments that were used in analyzing the data and extracting the results, in addition to the steps of building the strategy and its judging procedures, as follows:

Study Methodology

This study adopted the developmental survey method, as the most appropriate to achieve the objectives of the study, and data were collected using a questionnaire, and in light of this, proposed strategies were developed to develop the leadership skills of school leaders to enhance the Islamic identity of students in multicultural environments in Canada.

Study Population

The study population consisted of all educational leaders in Canada, namely (school principals, deputy principals, heads of educational departments), who according to statistics in Canada are (450) educational leaders for the academic year (2024-2025) from all Islamic schools in Canada, which are (119).

Study Sample

The study sample consisted of (51) educational leaders in Islamic schools in Canada who were selected by stratified random sampling by referring to statistical tables. The study sample was distributed according to the study variables (job status, educational experience, and academic qualifications).

Study Tool

To achieve the objectives of the study, the study tool was developed based on the experience of the top-rated Islamic schools in (leadership skills, Islamic identity, multicultural environments), which was proposed as a strategy for developing the leadership skills of school leaders to enhance the Islamic identity of students in multicultural environments in Canada. Previous studies such as the study of Ali & Bagley (2014) entitled Islamic education and multiculturalism were relied upon. Engaging with the Canadian experience, and Amatullah's (2024) study titled Exploring female Muslim educational leadership in a multicultural Canadian context. The theoretical literature on the experience of top-ranked

Islamic schools was also used to present the proposed strategy for developing the leadership skills of school leaders to enhance the Islamic identity of students in multicultural environments in Canada. The questionnaire in its initial form consisted of (29) paragraphs distributed over five axes, as follows:

1. **Domain One**: Leadership and Leadership Skills of School Leaders
2. **Domain II**: Multicultural Environments
3. **The Third Domain**: Islamic Identity among Students
4. **Domain IV**: The Canadian Multicultural Context
5. **Fifth Domain**: Proposed Strategies for Developing Leadership Skills

The five-point gradient was used to measure the developed paragraphs, including the reality responders through the following paragraphs: 5 to a very large degree, 4 to a high degree, 3 to a medium degree, 2 to a low degree, and 1 to a very low degree.

The validity and consistency of the tool were extracted as follows:

First: The Validity of the Tool

The validity of the study tool was verified by extracting the content validity by presenting it in its initial form to (10) referees from the faculty members with experience and competence in their fields, to know the degree of belonging of the paragraphs to their axes, clarity, and appropriate linguistic formulation.

The amendments recommended by the arbitrators were made by deleting and redrafting some paragraphs, so that four paragraphs were deleted and some paragraphs were transferred to other axes, so that the study tool in its final form became composed of (25) paragraphs.

Second: Stability of the Instrument

The stability of the tool was verified by calculating internal consistency using the Cronbach Alpha coefficient for the resolution domains, and the value of the stability coefficients for each of the domains was extracted, and Table (1) shows the values of the stability coefficients:

Table 1 Values of stability coefficients for resolution domains

Fact	Number of paragraphs	Domain	Domain Number
0.929	5	Leadership and Leadership Skills of School Leaders	**1**
0.825	5	Multicultural	**2**
0.855	5	Islamic Identity among Students	**3**
0.862	5	Canada's Multicultural Context	**4**
0.777	5	Suggested Strategies for Developing Leadership Skills	**5**

It is clear from Table 1 that there is an appropriate internal consistency for all areas within reality and importance, as the coefficients ranged between (0.777) in the minimum and (0.929) in the maximum.

Statistical Processing:

To answer the questions of the study, the appropriate statistical methods were used as follows:

To answer the first question: The arithmetic averages and standard deviations of the reality of the leadership skills needed by school leaders to enhance the Islamic identity of

students in multicultural environments in Canada were calculated from the point of view of educational leaders for each paragraph, each field and all the tools.

To answer the second question: Are there any statistically significant differences at ($\propto$=0.05) in the responses of the study sample to the degree of need for leadership skills among school leaders to enhance the Islamic identity of students in multicultural environments in Canada attributable to the variables of job status, educational experiences and academic qualifications? T-test and multiple variance analysis (MANOVA) were used.

To answer the third question: What are the proposed strategies for developing the leadership skills of school leaders to enhance the Islamic identity of students in multicultural environments in Canada? The effectiveness of the paragraphs was extracted using the Pearson correlation coefficient for the correlation between the paragraph, the domain, the paragraph, and the whole tool.

The levels of the scales have been divided into three levels instead of five levels as follows:

Maximum Answer Limit – The minimum answer is divided by the number of categories selected. 1-5 / 3 = 1.33

Thus, it is: - Low level 1 + 1.33 = 2.33 or less , medium level 2.34 + 1.33 = 3.67 , high level 3.68 and above.

To answer the fourth question: The strategies were presented to a number of experts and arbitrators from the faculty members in educational institutions, numbering (12), to express their opinions and observations on the degree of its suitability, realism, comprehensiveness, and feasibility.

3. Study Results and Discussion

This part included a presentation of the findings of this study by answering its questions, and discussing these results as follows:

The findings related to the first question, which states: What leadership skills are needed by school leaders to strengthen the Islamic identity of students in multicultural environments in Canada from the perspective of educational leaders ?

To answer this question, arithmetic averages and standard deviations were calculated, and Table (2) shows that:

Table (2) Mathematical Averages and Standard Deviations of the Reality of Applying Leadership Skills to Enhance Islamic Identity among Students in Multicultural Environments in Canada from the Perspective of Educational Leaders

Grade	Standard Deviation	Arithmetic average	Rank	domains	Domain Number
Medium	.65	3.26	1	Canada's Multicultural Context	4
Medium	.67	3.19	2	Multicultural	2
Medium	.75	3.15	3	Leadership and Leadership Skills of School Leaders	1
Medium	.99	2.98	4	Suggested Strategies for Developing Leadership Skills	5
Medium	.79	2.70	5	Islamic Identity among Students	3

Medium	**.60**	**2.97**	**The Reality of Applying Leadership Skills to Enhance Islamic Identity in Canada**

The results showed that the degree of applying leadership skills to enhance the Islamic identity among students in multicultural environments in Canada from the point of view of educational leaders came to a "medium" degree, as the arithmetic mean reached (2.97) and the standard deviation (.60). The arithmetic averages of the responses of the study sample members ranged between (2.70-3.26) and the standard deviations between (.99-.65), all within the average score.

The fourth area was "Canadian Multicultural Context" with an arithmetic mean (3.26) and a standard deviation (.65), which may be attributed to the clarity of Canadian policies in supporting multiculturalism and the existence of some formal arrangements that allow students to practice their rituals (such as prayer and fasting arrangements), but this support often remains at the theoretical level without full activation within schools. This finding is consistent with the study of Abu-Laban & Stasiulis (1992) which indicated that Canada officially embraces multiculturalism but still faces challenges in its actual implementation within educational institutions.

The second area came in second place, "multiculturalism" with an arithmetic average of (3.19) and a standard deviation (.67), which may be due to the efforts of Islamic schools to promote the values of coexistence and diversity among students, but the absence of comprehensive institutional programs limits the achievement of higher results. This finding is consistent with the views of Banks (2016) and Ali & Bagley (2014) who have emphasized that multicultural education remains a challenge in implementation despite its importance being recognized.

The first area was "Leadership and Leadership Skills of School Leaders" with an arithmetic average of (3.15) and a standard deviation (.75), due to the fact that leaders possess some basic leadership skills such as communication and management, but the lack of leadership skills training in diverse environments remains a limiting factor. This finding is consistent with what Northouse (2021) and Bush (2020) have pointed out about the importance of developing leadership skills in line with different cultural contexts.

Then in the fourth place is the fifth area "Proposed Strategies for Developing Leadership Skills" with an arithmetic average of (2.98) and a standard deviation (.99), which may be due to the lack of clear and institutional strategies within Canadian Islamic schools, and sufficing with individual initiatives or limited efforts. This is consistent with what Ahmed (2022) and the Senate of Canada (2023) have shown that the absence of strategic frameworks in the face of discrimination and Islamophobia weakens the effectiveness of educational practices.

Finally, the third area was "Islamic identity among students" with an arithmetic average of (2.70) and a standard deviation (.79), which is due to the social and cultural pressures faced by Muslim students in Canadian schools, and the forms of Islamophobia or implicit discrimination they are exposed to, which weakens their ability to express their religious identity. This finding is consistent with the findings of Elkassem's (2018) study on the impact of Islamophobia on Muslim children, and Omar's (2011) study, which emphasized the difficulty of showing a normal Islamic identity in the Canadian context.

The results related to the second question, which states: Are there any statistically significant differences at the level of (α = 0.05) in the responses of the study sample to the degree of the need for leadership skills among school leaders to enhance the Islamic identity among students in multicultural environments in Canada, attributable to variables: job status, educational experience, and academic qualifications?

To answer this question, the arithmetic averages and standard deviations of the areas of the degree of application of leadership skills among school leaders to enhance the Islamic identity of students in multicultural environments in Canada were extracted, attributed to the variables of: job status, educational experience, and academic qualifications, and Table (3) shows that:

Table (3) Mathematical averages and standard deviations of the domains of the degree of application of leadership skills among school leaders to enhance the Islamic identity of students in multicultural environments in Canada, attributable to the variables of: job status, educational experience and academic qualifications

					Variables		
.16	1.50	1.13	1.39	1.54	Arithmetic average	Bachelor	**Educational Qualification**
0.85	0.98	0.71	0.88	0.87	Standard Deviation		
1.31	1.67	1.45	1.48	1.51	Arithmetic average	Graduate	
.87	0.78	0.83	0.84	0.78	Standard Deviation		
1.05	1.23	1.00	1.03	1.45	Arithmetic average	School Principal	**Career Center**
1.19	1.19	1.09	1.15	1.04	Standard Deviation		
0.83	1.23	0.97	1.19	1.30	Arithmetic average	Assistant Principal	
0.56	0.95	0.53	0.64	0.73	Standard Deviation		
.06	1.59	1.24	1.47	1.58	Arithmetic average	Director of Educational Department	
.86	0.92	0.66	0.79	0.93	Standard Deviation		
.36	1.61	1.28	1.47	1.58	Arithmetic average	Head of Educational Department	
.86	0.92	0.80	0.92	0.82	Standard Deviation		
1.18	1.47	1.15	1.30	1.45	Arithmetic average	1 to 3 years	**Educational Experience**
.88	0.95	0.72	0.86	0.93	Standard Deviation		
.29	1.69	1.33	1.52	1.64	Arithmetic average	4 to 8 years	
0.85	0.89	0.75	0.83	0.76	Standard Deviation		
0.72	1.02	0.85	1.38	1.36	Arithmetic average	9 & Up	
.57	0.91	0.85	1.15	0.87	Standard Deviation		

The results show that there are apparent differences in the arithmetic averages of the domains of the degree of application of leadership skills among school leaders to enhance the Islamic identity among students in multicultural environments in Canada, attributed to the variables of: job status, educational experience and academic qualifications. To find out whether these apparent differences are statistically significant, multiple variance analysis (MANOVA) was used.

The results showed that there were no statistically significant differences at ($\alpha = 0.05$) in the responses of the study sample, where the values of (P) were not statistically significant at the level of (0.05).

This is due to:

1. Male and female leaders, regardless of their positions or qualifications, live in similar circumstances in all Canadian Muslim schools, and are subject to uniform policies and regulations, which has led them to adopt a common culture regarding the schools' application of leadership standards and Islamic identity. This finding is consistent with the study of Ali & Bagley (2014) which indicated that Islamic schools in Canada operate in a similar legislative and cultural context, limiting the existence of substantial differences between leaders.
2. This can also be explained by the objectivity of educational leaders and their shared culture and experience in the field of leadership, despite the fact that they do not have a clear and rigorous strategy for developing Islamic identity. These leaders are aware that the educational policies in their schools are not transparent and do not work enough to attract students or introduce modern and innovative educational programs. This finding is consistent with the Omar (2011) study which pointed out that there are no fundamental differences between leaders in Canadian schools in terms of leadership practices, given that they are influenced by the same public policies.
3. In terms of educational experience, the similar conditions that all leaders undergo while preparing and training them for leadership positions, such as formal training courses and standardized qualification programs, have reduced any differences related to work experience. However, this finding differs from the findings of the Elkassem (2018) study, which showed that the length of work experience of some leaders is sometimes related to their ability to face discrimination and Islamophobia in schools, suggesting that experience may play a role in some contexts. This was not shown in the current study.

The findings relate to the third question, which states: What is the proposed strategy for developing the leadership skills of school leaders to enhance the Islamic identity of students in multicultural environments in Canada?

To answer this question, the effectiveness of the paragraphs was extracted by finding a Pearson correlation coefficient between the paragraph, its domain, and the study tool as a whole. The results showed that the paragraphs were appropriately effective, as all the correlation coefficients were statistically significant ($p < .05$), as shown in Table (30), which supports the construct validity of the tool. It was also found that the correlation coefficients of the paragraph with its domain ranged approximately between .554–.828, and with the resolution as a whole, between .402–.778., reflecting the internal homogeneity of the paragraphs and their connection to the overall concept of the tool. In detailed reading:

1. Domain (1) vertebrae often appeared with medium-high correlation weights (e.g., paragraphs 2–5),
2. and domain (2) paragraphs showed relatively high correlations (e.g., 8, 10),
3. While the paragraphs of domain (3) maintained medium-high correlations,

4. Domain paragraphs (4) showed high values (e.g. 19–20),

The paragraphs of domain (5) came with significant and coherent correlations with the field and the overall score. This standardization enhances the appropriateness of the distribution of 25 paragraphs, with 5 paragraphs per area.

Table (5) Results of the effectiveness of the questionnaire items through the Pearson correlation coefficient

Correlation of the paragraph with the questionnaire as a whole		Paragraph association with domain		Paragraphs	Paragraph Number
Level of significance	Link value	Level of significance	Link value		
.000	.402**	.000	.554**	I involve teachers in making decisions related to the educational process.	**1**
.000	.612**	.000	.682**	I develop my leadership skills through ongoing training and specialized courses.	**2**
.000	.618**	.000	.695**	I communicate effectively with all the members of the school clearly and respectfully.	**3**
.000	.575**	.000	.609**	I manage school conflicts in a fair and constructive manner.	**4**
.000	.659**	.000	.774**	Motivate teachers and students with encouraging leadership styles	**5**
.000	.460**	.000	.702**	Provide a classroom environment that respects the different cultural backgrounds of students.	**6**
.000	.682**	.000	.723**	I address the challenges faced by students from diverse cultural backgrounds.	**7**
.000	.715**	.000	.805**	Integrate concepts of multiculturalism into school and extra-curricular activities.	**8**
.000	.645**	.000	.750**	I consider cultural diversity when planning school curricula and programs.	**9**
.000	.725**	.000	.828**	Involve parents from different cultures in school events.	**10**
.000	.545**	.000	.666**	Enhance the Muslim students' sense of belonging to their Islamic identity.	**11**
.000	.683**	.000	.697**	Provide the necessary facilities for students to practice their religious rituals (such as prayer and fasting).	**12**
.000	.670**	.000	.776**	Incorporate Islamic values into school activities.	**13**
.000	.712**	.000	.779**	I support hijab girls and provide them with a safe school environment.	**14**
.000	.607**	.000	.730**	Contribute to correcting negative stereotypes about Islam within the school community.	**15**

.000	.669**	.000	.691**	I am committed to implementing Canadian educational policies that take into account the rights of religious and cultural minorities.	**16**
.000	.630**	.000	.705**	Build positive relationships with the local community to support the school.	**17**
.000	.549**	.000	.682**	I keep up with school activities in the multicultural Canadian context.	**18**
.000	.659**	.000	.806**	I consider the challenges Muslim students face in expressing their identity within Canadian policies.	**19**
.000	.737**	.000	.796**	I participate in national initiatives in support of multiculturalism.	**20**
.000	.576**	.000	.693**	I adopt clear strategic plans to develop leadership skills in the school.	**21**
.000	.740**	.000	.755**	I follow up on the implementation of leadership strategies and evaluate them periodically.	**22**
.000	.778**	.000	.735**	I link leadership strategies to the achievement of the Islamic identity of students.	**23**
.000	.760**	.000	.735**	Engage experts in the development and implementation of leadership strategies.	**24**
.000	.610**	.000	.706**	The latest leadership strategies to match the cultural and educational changes in Canada.	**25**

Introduction to Strategy

In light of the results of the first and second questions, and the conclusions of the theoretical literature and previous studies related to the development of leadership skills (not digital) and their role in strengthening Islamic identity in multicultural environments, and given that the degree of application was average, there is a need to adopt a practical and progressive quality framework that bridges the gap between reality and hope. Accordingly, an integrated strategy has been built to strengthen the Islamic identity of students in Canada by developing the skills of school leaders.

Name of the proposed strategy:

Proposed Strategies (Mousa Hamdan and Faten Abu Salah) to Develop Leadership Skills of School Leaders to Enhance Islamic Identity among Students in Multicultural Environments.

Definition of the proposed strategy:

A targeted system of objectives, procedures and indicators implemented across five complementary areas (5 items for each area) to raise the competencies of school leadership and enable them to enhance the Islamic identity of students within the multicultural context of Canada.

Objectives of the proposed strategy

1. Raising leadership competencies (cognitive and behavioral).

2. Creating culturally inclusive school environments.
3. Establishing a safe and confident Islamic identity among students.
4. Align policies and practices with the Canadian context.
5. Establish governance and follow-up of performance to ensure continuous improvement.

Strategy Premises:

1. Study Results (Intermediate Application Score)
2. Principles of Justice and Inclusion
3. Canadian Context Requirements
4. Best School Leadership Practices.

Sources of building the strategy:

1. Results of the field study
2. Statistical Analysis
3. Theoretical literature
4. and previous relevant studies.

Target Groups:

1. School Leaders (Principal/Deputy/Department Heads)
2. Teachers
3. Workers
4. Students
5. Parents
6. and community partners.

Success Requirements:

1. Administrative Support
2. Human Resources
3. Sufficient time
4. Continuous training
5. Incentive system
6. Periodic follow-up and evaluation.

Implementation Mechanisms:

1. Annual/Quarterly Plan
2. Professional Learning Communities (PLCs)
3. Training Center
4. External Partnerships
5. Performance Indicators (KPIs) boards.

Potential Obstacles and Solutions

1. Time/budget constraints (flexible scheduling and partnerships)
2. Resistance to Change (Communication and Motivational Training)
3. Multi-policy (harmonization and normative procedures).

Suggested Strategies

Domain One: Leadership and Leadership Skills of School Leaders

1- Involving teachers in educational and administrative decision-making.
Objective: To promote collective participation in school decision-making.
Procedure: Organizing periodic meetings in which teachers participate in the formulation of educational decisions.
Indicator: Teachers' satisfaction with school decisions in the annual questionnaire increased.
2- Developing leadership skills through continuous training.
Objective: To raise the professional competence of educational leaders.
Procedure: Holding specialized training courses in modern educational leadership.
Indicator: Increase in the number of courses implemented and the rate of actual participation in them.
3- Enhancing effective communication skills among all school members.
Objective: To improve the quality of communication between the leader, teachers and students.
Action: Establish internal electronic communication channels between the administration and teachers.
Indicator: Decrease in miscommunication complaints by (...%).
4- Managing school conflicts in a fair and constructive manner.
1. Objective: To achieve a stable school environment.
2. Procedure: Applying a clear mechanism for resolving disputes (mediation – internal reconciliation committees).
3. Indicator: Decrease in cases of disputes filed by the Department of Education by (...%).

5- Applying motivational leadership styles to raise the motivation of teachers and students.
Objective: To increase motivation and academic achievement.
Procedure: Adopting an incentive and encouragement system for distinguished teachers and students.
Indicator: Increase in participation rates in school activities by (...%).
Domain II: Multicultural Environments
6- Providing a classroom environment that respects the diverse cultural backgrounds of students.
Objective: To promote mutual respect among students in the classroom.
Action: Establish classroom rules that encourage respect for different cultures.
Indicator: Decrease in the number of behavioral problems associated with cultural discrimination.
7. Addressing the challenges faced by students from diverse cultural backgrounds.
Objective: To help students overcome academic and social obstacles.
Procedure: Providing individual and group counseling sessions for students from diverse backgrounds.
Indicator: Increasing the rate of students' adaptation and integration into the school environment.
8- Incorporating the values of multiculturalism in school and extra-curricular activities.
Objective: To enhance students' awareness of the importance of multiculturalism.
Action: Organizing school activities and celebrations that highlight cultural diversity.

Indicator: Students' participation in activities that celebrate diversity.

9. Consider cultural diversity when planning school curricula and programs.
Goal: To make the curriculum more inclusive and culturally just.
Action: Inclusion of multicultural educational topics and activities.
Indicator: Increasing students' awareness of the concepts of pluralism and cultural openness.
10. Involve parents from different cultures in school life.
Objective: To foster collaboration between the school and parents from multiple backgrounds.
Procedure: Holding regular meetings and workshops with parents with the participation of interpreters when needed.
Indicator: Increased participation rate of parents in school events.
The Third Domain: Islamic Identity among Students
11- Enhancing the Muslim students' sense of belonging to their Islamic identity.
Objective: To develop self-awareness and pride in Islamic identity.
Action: Organizing counseling programs and school activities that promote Islamic values.
Indicator: Increasing the percentage of students' sense of belonging as shown in periodic questionnaires.
12. Provide the necessary facilities for students to practice their religious rituals (such as prayer and fasting).
Objective: To enable students to perform their religious rituals without hindrance.
Procedure: Allocating suitable places for prayer and scheduling school events in accordance with the month of Ramadan.
Indicator: High level of satisfaction of students and parents with the school's support for religious rituals.
13- Integrate Islamic values into school activities.
Objective: To link Islamic values to educational and educational activities.
Procedure: Designing extra-curricular programs and competitions that reflect Islamic values.
Indicator: Increasing students' participation in value-based activities.
14- I support hijab girls and provide them with a safe school environment.
Objective: To promote equality and equal opportunities for all female students.
Action: Develop policies that prevent discrimination against veiled women within the school.
Indicator: Decrease in cases of complaints related to discrimination against veiled female students.
15- Contributing to the correction of negative stereotypes about Islam within the school community.
Objective: To spread a positive image of Islam among students and teachers.
Action: Holding awareness workshops for teachers and students on religious diversity and Islamophobia.
Indicator: Improved attitudes of students and teachers towards Islamic identity as seen in opinion polls.
Domain IV: The Canadian Multicultural Context

16. I am committed to implementing Canadian educational policies that consider the rights of religious and cultural minorities.
Goal: To ensure fairness and inclusivity for all students.
Action: Periodically review school policies to ensure that they are in line with Canadian laws that support pluralism.
Indicator: Decreased complaints of inequality or discrimination within the school.
17. Build positive relationships with the local community to support the school.
Objective: To strengthen the school's partnership with community institutions.
Action: Establishing partnerships with Islamic and Canadian cultural centers and associations.
Indicator: Increase in the number of joint activities between the school and the local community.
18. I keep up with school activities in the multicultural context of Canada.
Objective: To align curricula and activities with diverse Canadian realities.
Action: Inclusion of school events that reflect multiculturalism in Canada.
Indicator: Increasing students' acceptance of multiple cultures within the school environment.
19. I consider the challenges faced by Muslim students in expressing their identity within Canadian policies.
Objective: To support the freedom of Muslim students to practice their religious identity.
Procedure: Provision of approved exceptions in school activities that take into account Islamic practices.
Indicator: The high percentage of Muslim students' satisfaction with the school's support for their identity.
20. I participate in national initiatives that support multiculturalism.
Objective: To make the school an active part of Canadian community initiatives.
Action: Participation in national days and government programs to promote pluralism.
Indicator: Inclusion of the school among the institutions participating in official national initiatives.
Fifth Domain: Proposed Strategies for Developing Leadership Skills
21. I adopt clear strategic plans to develop leadership skills in the school.
Objective: To establish a clear vision for school leadership.
Action: Prepare a written strategic plan that includes specific time goals for leadership development.
Indicator: The existence of an approved strategic document that is followed up periodically.
22- I follow up on the implementation of leadership strategies and evaluate them periodically.
Objective: To ensure the effectiveness of leadership strategies.
Action: Establish a semi-annual evaluation mechanism to follow up on the implementation of strategies.
Indicator: Periodic reports showing the level of achievement of leadership goals.
23- Link leadership strategies to achieving the Islamic identity of students.
Objective: To make Islamic identity a central focus of school leadership.
Action: Include Islamic identity values in all school leadership plans.

Indicator: Increasing students' sense of belonging to the Islamic identity by (...%) according to the questionnaires.

24. Involve experts in the development and implementation of leadership strategies.

Objective: To leverage specialized expertise to enhance the quality of driving.

Action: Engage academic and pedagogical experts in formulating and implementing strategies.

Indicator: Increase in the number of consultation sessions and workshops carried out with the participation of experts.

25. The latest leadership strategies in line with cultural and educational changes in Canada.

Objective: To keep pace with changes and ensure the sustainability of the effectiveness of strategies.

Action: Review and update leadership strategies every two years to adapt to new developments.

Indicator: Release of an updated version of the strategy in line with the variables of the Canadian educational environment.

The findings relate to the fourth question, which states: What is the degree of suitability of the proposed strategy for developing the leadership skills of school leaders to enhance the Islamic identity of students in multicultural environments, from the perspective of experts?

To answer this question, the researchers presented the proposed strategies to a group of 12 experts and specialists in educational leadership and cultural diversity, in order to judge them and ensure their suitability and suitability for application in the Canadian multicultural context.

4. Recommendations

In light of the results of the study and the conclusions reached, the researchers recommend the following:

1. **Developing specialized training programs for educational leaders**
   - Conduct periodic training programs for Islamic school leaders in Canada to enhance their leadership skills, including training in **cultural intelligence, empathetic leadership, and cultural diversity management**, to raise the level of skills application from the middle to the high level.
2. **Integrating Islamic identity into school policies and activities**
   - Reformulate the internal policies of Islamic schools to include clear clauses that promote the practice of religious rituals for students, and support initiatives that contribute to the consolidation of Islamic identity in curricula and extra-curricular activities.
3. **Strengthening partnerships with the local community and official authorities**
   - Build strong partnerships with Islamic centres, Canadian associations and government initiatives for multiculturalism, contributing to broader institutional support for Islamic schools and promoting acceptance of Islamic identity within Canada's diverse society.
4. **Creating institutional mechanisms for resolving disputes and discrimination**

- Develop clear and transparent systems for managing conflicts within schools, and reduce Islamophobia or discrimination against Muslim students, especially veiled girls, to ensure a safe and inclusive learning environment.

5. **Adopting Proposed Strategies as a Frame of Reference for Schools**
   - Adopting the proposed strategies (25 items distributed over 5 areas) as a reference document for developing the skills of educational leaders, and following up on their implementation and evaluating them periodically to ensure their effectiveness.
6. **Activating the role of parents in the educational process**
   - Involve parents from different cultural and religious backgrounds in regular school councils and activities, which promotes family-school cooperation and contributes to the enhancement of students' Islamic identity.

Conducting Extensive Future Studies

Expanding future field research on other related issues, such as the **impact of digital leadership on Islamic identity, and the role of Canadian curricula in building the identity of Muslim students**, opening the way for the development of innovative educational solutions.

5. Concluding

This study aims to provide proposed strategies for developing leadership skills among Islamic school leaders in Canada, in a way that contributes to strengthening the Islamic identity of students in multicultural environments. The results of the study revealed that the reality of leadership skills among educational leaders came to a moderate degree, which reflects the urgent need for practical interventions to bridge the gap between reality and the desired level. The results also showed that there are no statistically significant differences attributed to the variables of job status, educational experience, or educational qualification. This suggests that the challenges facing educational leaders are similar regardless of their backgrounds or job positions.

In light of these findings, the researchers built practical strategies distributed over five main areas that included (25) items, including educational leadership, multicultural environments, the promotion of Islamic identity, the Canadian context, in addition to institutional strategies for developing leadership skills. These strategies were judged by (12) experts and specialists, and the results of the judging proved their high degree of relevance, realism, and applicability in Islamic schools in Canada.

The study emphasizes that Islamic schools in Canada urgently need to adopt and apply these strategies, as they have a direct impact on improving institutional performance, developing the efficiency of educational leaders, and enhancing the Islamic identity of students, taking into account the requirements of multiculturalism in Canadian society. These strategies also represent a scientific and practical addition that can be built on in future studies, and open the way for the development of innovative leadership models that contribute to achieving a balance between religious identity and positive integration in multicultural environments.

In doing so, the study provides an integrated framework that can serve as a reference for educational leaders, decision-makers, and researchers interested in developing education in culturally and religiously diverse contexts, while emphasizing the importance of periodically

reviewing these strategies to keep pace with the rapid changes in the Canadian and global educational environment.

References

1. Abu-Laban, Y., & Stasiulis, D. (1992). Ethnic pluralism under siege: Popular and partisan opposition to multiculturalism. *Canadian Public Policy, 18*(4), 365–386. https://doi.org/10.2307/3551630
2. Ahmed, A. (2022). A framework to assess the supports provided for Muslim students. *RSS Journal*. Retrieved from https://rssjournal.ca/index.php/rss/article/view/Islamophobiaframework-aahmed-rssj
3. Ali, F., & Bagley, C. (2014). Islamic education and multiculturalism: Engaging with the Canadian experience. *Journal of Contemporary Issues in Education, 8*(2), 19–31. https://doi.org/10.20355/C5S59S
4. Alizai, H. (2017). *Impact of Islamophobia on post-secondary Muslim students attending Ontario universities* (Master's thesis). Western University. Retrieved from https://ir.lib.uwo.ca/etd/4716/
5. Alizai, H. (2021). Young Canadian Muslims: Islamophobia and higher education. *Comparative and International Education, 50*(1), 1–15. Retrieved from https://ojs.lib.uwo.ca/index.php/cie-eci/article/download/14131/11351/30121
6. Amatullah, T. (2024). Exploring female Muslim educational leadership in a multicultural Canadian context. *Religions, 15*(2), 215. https://doi.org/10.3390/rel15020215
7. Banks, J. A. (2016). *Cultural diversity and education: Foundations, curriculum, and teaching* (6th ed.). Routledge. https://doi.org/10.4324/9781315623471
8. Bush, T. (2020). *Theories of educational leadership and management* (5th ed.). Sage Publications.
9. Elghawaby, A. (2023). Canada's special representative on combatting Islamophobia. Retrieved from https://en.wikipedia.org/wiki/Amira_Elghawaby
10. Elkassem, S. (2018). Growing up Muslim: The impact of Islamophobia on children. *Journal of Muslim Minority Affairs, 38*(3), 1–18. https://doi.org/10.1080/13602004.2018.1500560
11. Ennab, F. (2024). Young women's experiences of anti-Muslim racism in schools. *Canadian Centre for Policy Alternatives*. Retrieved from https://www.policyalternatives.ca/wp-content/uploads/2024/05/Young-Womens-Experiences-of-Anti-Muslim-Racism-in-Schools-.pdf
12. Islamophobia in Canada. (2023). In *Wikipedia*. Retrieved from https://en.wikipedia.org/wiki/Islamophobia_in_Canada
13. National Council of Canadian Muslims (NCCM). (2023). In *Wikipedia*. Retrieved from https://en.wikipedia.org/wiki/National_Council_of_Canadian_Muslims
14. Northouse, P. G. (2021). *Leadership: Theory and practice* (9th ed.). Sage Publications.
15. Omar, A. (2011). Islamic identity in the Canadian multicultural context. *Cultural and Pedagogical Inquiry, 3*(2), 16–29. Retrieved from https://journals.library.ualberta.ca/cpi/index.php/cpi/article/view/16951
16. Rosen, L. (2012). The culture of Islam: Changing aspects of contemporary Muslim identity. *Journal of Muslim Minority Affairs, 32*(2), 165–180. https://doi.org/10.1080/13602004.2012.694662
17. Senate of Canada. (2023). *Confronting Islamophobia in Canada: Report of the Standing Senate Committee on Human Rights*. Ottawa: Government of Canada. Retrieved from https://sencanada.ca/content/sen/committee/441/RIDR/reports/Islamophobia_FINAL_e.pdf
18. University of Manitoba. (2019). *Identity construction of young Muslim students* (Doctoral dissertation). MSpace, University of Manitoba. Retrieved from https://mspace.lib.umanitoba.ca/handle/1993/34567

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Official Postal Address:

30 Eglinton Avenue West, Floor 4, Unit 400,

Mississauga, Ontario, L5R3E7, Canada